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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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#### ALIGNMENTS

Human; IGF-I isoform; Insulin-like Growth Factor-I; MGF; merchano-growth factor; neurological disorder; neurodegenerative disorder; amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy; poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease. Human IGF-I isoform mechano-growth factor (MGF) protein. AAE02447; AAE02447 standard; protein; 110 AA. 15-NOV-2000; 2000WO-GB004354. 25-MAY-2001. WO200136483-A1. Homo sapiens. 10-AUG-2001 (first entry)

15-NOV-1999; 99GB-00026968.

(UNLO ) UNIV COLLEGE LONDON.

Goldspink G, Johnson I;

WPI; 2001-355620/37. N-PSDB; AAD06398.

Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.

Claim 4; Page 50-51; 66pp; English.

The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polymuclocide and polypoptide are useful in the manufacture of a medicament for the treatment of a neurological disorder,

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                                                                                                                                                 Use of insulin-like growth factor-I (IGF-I) isoform known as mechano growth factor which is encoded by IGF-I exons 4,5,6 and has ability to reduce motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motorneuron disorder;
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                                                                                                                                                                                                                    N-PSDB; AAS16877
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The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be

The present sequence is that of the C-terminal end of novel human mechano growth factor (MGF), encoded by exoms 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-I) that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The human MGF transcript has a 49 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polymucleotide in the manufacture of a medicament for the prevention or limitation of myocardial damage in response to ischaemia or mechanical overload of the heart by preventing or limiting apoptosis in

Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload

N-PSDB; ACF79635

Claim 5; Fig 7; 74pp; English.

Claim 11; Fig 5; 65pp; English.

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                                                                                                                                                                                                                                                                         Goldspink G,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             splice variant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mechano growth factor; MGF; insulin-like growth factor 1; human;
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The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avalsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polynucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder, including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, poliomyelitis or post-polio syndrome, a disorder caused by exposure to a toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an injury that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy,
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                                                                                                                                                                                                                                                                                                                            Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-GB004354.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Johnson I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99GB-00026968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Insulin-like Growth Factor-I; MGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
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Pred. No. 6e-54;
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RESULT 5
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I) isoform, known as mechano-growth factor (MGF), in the manufacture of medicament for treating nerve damage in the peripheral nervous system, of or treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polymucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve
                                                                                                                                                                                                                                                                                                             Use of insulin-like growth factor-I (IGF-I) isoform known as mechano growth factor which is encoded by IGF-I exons 4,5,6 and has ability treduce motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rabbit; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motorneuron disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peripheral neuropathies, Alzheimer's disease and Parkinson's disease. present sequence is rabbit IGF-I isoform MGF: MGF is a muscle isoform having extracellular (Ec) domain, hence also referred as IGF-I-Ec. The MGF protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
                                                                                                                                                                                               The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a
                                                                                                                                                                                                                                                      Claim 11; Fig 7; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-055585/07
N-PSDB; AAS16879.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oryctolagus cuniculus.
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                                                                                                                                                                                                                                                                                                 damage.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2001; 2001WO-GB002054.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         107;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPETLCGABLVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 572.5;
Pred. No. 2.0
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Best Local
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                                                                                                       The present sequence is that of the C-terminal end of novel rabbit mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-) that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The rabbit MGF transcript has a 52 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polymucleotide in the manufacture of a medicament for the prevention or limitation of mycoardial damage in response to ischaemia or mechanical overload of the heart by preventing or limiting appropriate in the mycoardium. The MGF polypeptide, polymucleotide or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UNII)
                                                                                     medicament is also useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 5; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload of the heart.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-FEB-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; 74pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  factor; MGI
; cardiant;
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                                                                                        for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            insulin-like growth factor 1; rabbit;
asotropic; gene therapy.
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Pred. No. 2.6e
1; Mismatches
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                                                                                     administration in response to a heart
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Query Match

95.7%;

Score

572.5;

ВB

7;

Length 111;

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61

CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK 110

Sequence

111

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                                                                                                                                             Query Match
Best Local
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                                                                                                                                                                                                                                                                     A use of insulin like growth factor I (IGF-1) has been developed, and is characterised by the presence of the Ec peptide, or a functional equivalent, in the treatment or therapy of a human or animal. The IGF-1 polypeptide can be used to treat muscular disorders, e.g. Duchenne or Becker muscular dystrophy, autosomal dystrophies and related progressive skeletal muscle weakness and wasting, muscle atrophy in ageing humans, spinal cord injury induced muscle atrophy and neuromuscular diseases, and cardiac disorders, e.g. diseases where promotion of cardiac muscle protein synthesis is a beneficial treatment, cardiomyopathies and acute infarction. It can also be used to promote bone fracture healing and maintenance of bone in old age. The present sequence represents rabbit IGF-1 used in the present specification
                                                                                                                                                                                                                         Sequence 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of insulin like growth factor I characterised by presence of peptide - to treat humans or animals, particularly muscle disords
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 3; 33pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAT84893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goldspink
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-SEP-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Insulin like growth factor 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rabbit insulin like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-APR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UNLO ) ROYAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1997-470877/43
                                                                                                                  107;
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                                                                                                                                             Similarity
GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                         GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK
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                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                    95.7%;
96.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
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1; Mismatches 2;
                                                                                                         Score 572.5; DB 2; Pred. No. 2.9e-51; 1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGF-1; Ec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            peptide; muscle disorder; heart;
                                                                                                            Indels
                                                                                                                                                              Length
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                                                                                                                                                                 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲.
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                                                                                                         Gaps
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70
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RESULT 9
ABP58085
ID ABP5
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AC ABP5
XX
DT 07-M
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                                                                                                                                                                                                                                         Query Match
Best Local Simi
Matches 103;
                                                                                                                                                                                                                                                                                                                         A 42 base oligonucleotide corresponding to the DNA sequence encoding amino acids 10 to 23 of mature human IGF-I was synthesized (AAN70437). The radiolabeled 42 mer was then employed to screen for IGF-I containing DNA sequences in a human liver cDNA library. Insulin-like growth factors -1A and -1B cDNAs were isolated from a human cDNA library by using lambdagt 11 (AAN70435, AAN70436). The human IGF-I genomic gene was isolated and mapped. It encodes at least two preproinsulin-like growth factor-1 proteins. An essentially pure proproinsulin-like growth factor-1 proteing the sequence of amino acids shown in Figure six is claimed (AAP70277). (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New pre-pro-insulin-like growth factor-1 protein - obtd. by recombinant DNA procedures for use as growth promoters for enhancing lactation, for stimulating cell proliferation etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth promoter; lactation enhancer; cell proliferation
 07-MAR-2003
                            ABP58085;
                                                        ABP58085
                                                                                                                                                                                                                                                                                                   Sequence 195 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1987-200203/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JAN-1986;
20-NOV-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-JAN-1987;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence of pre-pro-insulin-like growth factor 1B (ppIGF-1B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2003
05-APR-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP70277 standard; protein; 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UNIW ) UNIV WASHINGTON
                                                                                                                                                       61
                                                                                                                                                                                    49
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                                                                                                                                                                                                               μ
                                                                                                                                                                                                                                                          Similarity
                                                        standard;
                                                                                                                            CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKG
                                                                                                                                                      CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKG 103
                                                                                                                                                                                    GPETLCGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAFQTGIVDECCFRSCDLRRLEMY 108
                                                                                                                                                                                                                 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 6; 59pp; English.
                                                                                                                                                                                                                                           Conservative
 (first entry)
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(first entry)
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86US-00929671.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87EP-00870001
                                                        protein;
                                                                                                                                                                                                                                                          93.6%;
100.0%;
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                                                                                                                                                                                                                                                        Score 560; DB 1;
Pred. No. 9.3e-50;
                                                                                                                                                                                                                                            Mismatches
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RESULT 10
ADA23374
ID ADA23
XX
AC ADA23
XX
DT 20-NC
XX
DE Mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is the protein sequence of murine insulin-like CG growth factor 1B (IGF-IB). IGF-IB cDNA was used in an example of the method of the invention to generate probes for determination of IGF-IB CC RNA. The method comprises a quantitative hybridisation assay for analysis CG immobilising the TNA sample on a solid support; (ii) contacting a CC immobilising the TNA sample on a solid support; (ii) contacting a CC immobilising the signal portion of the TNA; (iii) detecting and CC sense probe to a second portion of the TNA; (iii) detecting and (iv) CC quantitating the signals generated from the hybridised probes; and (iv) CC determining the value represented by the antisense probe signal minus the cC sense probe signal, the value being proportional to the amount of mRNA in CC the TNA sample. In an example of the method, a cDNA clone containing 60 cnucleotides from exon 2 and 179 nucleotides from exon 3 of the mouse IGF-CC IB gene was cloned into poin-4z vector. Linearisation of the plasmid with CC cord allowed transcription of a 250-nucleotide antisense probe using T7 CC polymerase. Linearisation with HindIII allowed transcription of a sense CC were purified and used to determine IGF-I RNA in mouse hepatocytes and CC also in rat hepatocytes
                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Quantitating a target nucleic acid in a sample comprises immobilizing, on a solid support, a sample comprising a target nucleic acid, and detecting and quantitating signals generated from the antisense and sense probes.
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insulin-like growth factor IB; IGF-IB; mouse; mRNA; assay; nucleic acid detection.
                                                                                                        ADA23374 standard; protein; 133 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 17; 18pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31-MAY-2002; 2002WO-SE001056.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse insulin-like growth factor IB.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2003-129529/12.
DB; ABV76185.
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                                                                                                                                                                                                                                                                                                          \vdash
                                                                                                                                                                                                                                                                                                                                            99; Conservative
                                                                                                                                                                                                                          CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTTNRVTKSQ-RRKGSTFEEHK 110
                                                                                                                                                                                                                                                                       GPETICGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                 CAPLKPTKAARSIRAQRHTDMPKTQKSPSLSTNKKTKLQRRRKGSTFEEHK
                                                                                                                                                                                                                                                                                                                                                            87.2%;
89.2%;
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••
                                                                                                                                                                                                                                                                                                                                            Score 521.5; DB 6;
Pred. No. 5.8e-46;
2; Mismatches 9;
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                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                 133;
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                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                           82
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Mouse MGF amino acid sequence

20-NOV-2003 (first entry)

Rat

factor

(MGF)

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RESULT 11
AAE02448
ID AAE02
XX
AC AAE02
XX
DT 10-AU
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                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes an isolated peptide capable of acting as CC a ligand for an antibody with affinity for the C-terminus of mechano-CC growth factor (MGF), for use in therapy, where the peptide is not MGF.

CC Also described is an isolated peptide for use in therapy comprising the CC sequence (I) (X1)m(X2)n(X3)G(X4)(X5)(X6)(X7)2(X8)p, where X1 = a basic CC cresidue, X2 and X8 = any amino acid, X3 and X4 = Lys or Glu, m = 2 or 3, n = 0 cc composition for the treatment of muscle ardiant activities, and can be CC composition for the treatment of muscle damage, deterioration or injury, CC particularly damage to skeletal muscle, especially muscular dystrophy or Gdamage to cardiac muscle, and to manufacture a composition for the repair CC damage to cardiac muscle, and to manufacture a composition for the repair CC used to treat conditions associated with muscle fatigue and/or injury for example during exercise, and to treat muscle deterioration or damage for example during exercise, and to treat muscle deterioration or damage for camposis of precursor cells. The peptide can be used in cell culture cc example during exercise, and to treat muscle deterioration or damage for camposis of precursor cells. The present sequence represents that the promote growth or repair of muscle or nerve cells in vivo and to inhibit capputosis of precursor cells. The present sequence represents a mouse MGF amino acid sequence, which is given in comparison with mouse insulin cc growth factor 1 (IGFI) in the exemplification of the present invention.
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                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptides corresponding to the C terminus of creatine kinase have similar function to mechano-growth factor and are useful to treat mus damage such as exercise injury, muscular dystrophy and heart attack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ligand; antibody; mechano-growth factor; MGF; inotropic; cardiant; cell signaling; muscle damage; muscular dystrophy; cardiac muscle muscle fatigue; heart attack.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-FEB-2003; 2003WO-GB000657
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   10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beaumont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2002; 2002GB-00003552
                                     AAE02448
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 133
                                                                          AAE02448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BEAU/) BEAUMONT N.
                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2003-679637/64.
                                                                                                                                                                    83
                                                                                                                                                                                                       61
                                                                                                                                                                                                                                          23
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                                                                                                                                                                                                                                                                                                                  99;
                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                 CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK
                                                                                                                                                                                                                                                                             GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                          standard;
                                                                                                                                                                      CAPLKPTKAARSIRAORHTDMPKTQKSPSLSTNKKTKLQRRRKGSTFEEHK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 1; 21pp; English
                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                         A.
   (first
                                                                        protein;
                                                                                                                                                                                                                                            DALOFVCGPRGFYFNKPTGYGSSIRRAPOTGIVDECCFRSCDLRRLEMY 82
                                                                                                                                                                                                                                                                                                                                  87.2%;
89.2%;
                                                                            111
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N
                                                                                                                                                                                                                                                                                                                                    Score 521.5;
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                  es 9;
                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                      7;
                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                      Length 133;
                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     muscle
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AAU10560 ID AAU1 XX

AAU10560 standard; protein;

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RESULT 12

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The present invention relates to use of mechano-growth factor (MGF), an CI Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve cavulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polymuclectide and polypeptide are useful in the including a disorder of motoneurones and/or neurodegenerative disorder, including a disorder of motoneurones and/or neurodegenerative disorder, ce g. amyotrophic lateral selectosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive poliomyelitis or post-polio syndrome, a disorder caused by exposure to a coxin, motoneurone trauma, a motoneurone lesion or nerve damage, an company that affects motoneurones, motoneurone loss associated with aging, autosommal or sex-linked muscular dystrophy, diabetic neuropathy, caperipheral neuropathies, Allheimer's disease and parkinson's disease. The persent sequence is rat IGF-I isoform MGF. MGF is a muscle isoform having extracellular (EC) domain, hence also referred as IGF-I-EC. The MGF correction comprises amino acid sequences encoded by nucleic acid sequence of coff-I-EC acid sequence of motor motors.
                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amyotrophic lateral sclerosis; spinal muscular atrophy; muscular poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 4; Page 52; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200136483-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UNLO ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGF-I isoform mechano-growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IGF-I isoform; Insulin-like Growth Factor-I; MGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001-355620/37
)B; AAD06399.
61
                                                              5
                                                                                                                                    μ
                                                                                                                                                                                                                                                                                                         Similarity
                                                              CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK 110
                                                                                                                                       GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                       GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK
                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COLLEGE LONDON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-GB004354
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ceral sclerosis; spina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99GB-00026968
                                                                                                                                                                                                                                                                                                     82.7%;
85.6%;
                                                                                                                                                                                                                                                                        Score 494.5; DB Pred. No. 3e-43; 2; Mismatches
                                                                                                                                                                                                                                                                           13;
                                                                                                                                                                                                                                                                                                                                          4
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                                                                                                                                                                                                                                                                                                                                          Length 111;
                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disorder;
ar atrophy;
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RESULT 13
ABR63168
ID ABR63
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AC ABR63
XX
DT 18-DE
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Best Local S
                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                   The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polynucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve avulsion. This sequence represents the rat MGF polypeptide
                18-DEC-2003
                                                 ABR63168
                                                                                                                                                                                                                                                                                                                                            Sequence 111 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 11; Fig 6; 65pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rat; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motorneuron disorder;
                                                                             ABR63168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAY-2000; 2000GB-00011278
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nerve avulsion.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rat mechano-growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-FEB-2002
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(EGRI-) EAST GRINSTEAD MEDICAL
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DB; AAS16878.
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                                                                                                                                                                                                                                                                                  95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         insulin-like growth factor-I (IGF-I) isoform known as mechano factor which is encoded by IGF-I exons 4,5,6 and has ability to motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                     μ.
                                                                                                                                                                                                                                                   μ
                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                            CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK 110
                                                                                                                                                                                                                                               GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                             standard;
                                                                                                                                                      CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                                                                                                   GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                  Conservative
                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Terenghi
                                                                             protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor (MGF) polypeptide
                                                                                                                                                                                                                                                                                               82.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ဂ
                                                                             111
                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                             Score 494.5; DB
Pred. No. 3e-43;
2; Mismatches
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RESULT 14
ADE57466
ID ADE57
XX ADE57
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is that of the C-terminal end of novel rat mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-I) that is activated in response to cardiac tissue damage and which has a repair function in the isohaemic and/or overloaded heart. The rat MGF transcript has a 52 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polypucleotide in the manufacture of a medicament for the prevention or limitation of myocardial damage in response to ischaemia or mechanical overload of the heart by preventing or limiting apoptosis in the myocardium. The MGF polypeptide, polypeptide or polypeptide or neglation of myocardial damage in response to ischaemia or the myocardium. The MGF polypeptide, polymucleotide or medicament is also useful for administration in response to a heart attack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of Mechano Growth Factor polypeptide or polymucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload of the heart.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mechano growth factor; \mathsf{MGF}_i insulin-like growth factor 1; rat; splice variant; cardiant; vasotropic; gene therapy.
                                                        Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                     Rat Protein P08024, SEQ ID NO 3327.
                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                                                                                                                                                                                  ADE57466;
                                                                                                                                                                                                                                                                                                                                           ADE57466 standard; protein; 181 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 111 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; ACF79636.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPETLCGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8; 74pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COLLEGE LONDON
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                                                                                                                                                                                                                    entry)
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Pred. No. 3e-43;
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Rattus norvegicus

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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                     or human polynucleotides or a polynucleotide which represents a fragment, or claimed are a vector comprising the nucleic acid sequence. Also claimed are a vector comprising the nucleic acid sequence. Also comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a comprision of the polynucleotide sequence that increases or decreases the expression of the polynucleotide sequence or that is differentially expressed in neuronal tissue of a first animal compound that regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying an agent compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound which regulates the compound that regulates the activity of one or more of the polypuptides given in the compound or small moleculate that regulates the activity of an animal composition, a method for identifying a pharmaceutical composition, a method for identifying a compound useful in treating pain and a pharmaceutical compound or small moleculate that regulates the compound or small moleculates the compound that regulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction continuty (Chung), chronic constriction injury (Chung), which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed of the specification, but was obtained in electronic form directly from WIPO at
                                                                                                                                               В
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                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 92
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                   AAE02450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention discloses a composition comprising two or more isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-AUG-2002; 2002WO-US025765
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                                                       AAE02450 standard;
                                                                                                                                                                                                                                                                                                                                                                     Sequence 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENBANK;
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                                                                                                                                                                                                                                                                                                                                                                                                         ftp.wipo.int/pub/published_pct_sequences
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BAYER AG.
                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                              CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKGSTFEEH
                                                                                                                                               CAPLKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGESKAH
                                                                                                                                                                                                                        GPETICGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 108
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                                                                                                                                                                                                                           The present invention relates to use of mechano-growth factor (MGF), an CC Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve create. The MGF polynuclectide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder, including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, infantile or juvenile muscular atrophy, complicities or post-polio syndrome, a disorder caused by exposure to a ctoxin, motoneurone trauma, a motoneurone lesion or nerve damage, an comply that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy. The LIGF-I protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4 and 6
                                                                                                                               Matches
                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; databetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease; liver; L.IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; IGF-I isoform; Insulin-like Growth Factor-I; MGF; mechano-growth factor; neurological disorder; neurodegenerative disorder; amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-AUG-2001
                                                                                                                                                                                                Sequence 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-1999;
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                            CAPLKPAKSARSVRAQRHTDMPKTQK 86
                                                               GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
CAPLKPAKSARSVRAQRHTDMPKTQK
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                                                                                                                               Conservative
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Search completed: March Job time: 50.7108 secs

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Minimum
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Listing first 45 summaries
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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seg length: 2000000000
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Issued_Patents_AA:*
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Copyright (c) 1993 - 2004 Compugen Ltd.
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US-07-78-903A-17
US-07-958-903A-17
US-08-462-018-17
US-08-823-245-17
US-08-823-245-17
US-08-823-271-1
US-09-080-120A-1
US-09-080-120A-1
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US-08-989-251-41
US-09-340-250-41
US-09-528-108-41
US-08-460-890A-47
US-08-167-641C-47
US-08-462-040-47
US-07-953-230A-9
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US-08-950-720A-9
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US-08-180-572-5	US-09-528-108-39	09-340-250-3	51-3	-08-462-397-8	US-08-328-961-8	US-09-029-267-14	œ	PCT-US93-11297-12	US-08-451-241-12	US-08-240-121-12	US-08-161-044-12	US-07-989-844-12	US-07-989-845-28	PCT-US95-08925-1	PCT-US93-11458-1	PCT-US92-09443A-1	US-09-723-896-1
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#### ALIGNMENTS

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LENGTH: 121 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-142-583A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-09-142-583A-4
                                                                                                                                                                                            COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/142,583A
FILING DATE: 29-Oct-1998
CLASSIFICATION: «Unknown»
FRIOR APPLICATION NUMBER: WO PCT/GB97/00658
FILING DATE: 11-MAR-1997
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: SADOFF, B. J.
REGERENCE/DOCKET NUMBER: 3663
REFERENCE/DOCKET NUMBER: 117-263
TELECOMMUNICATION INFORMATION:
TELEPAN: 7038164100
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application patent No. 6221842

Patent No. 6221842

GENERAL INFORMATION:
Query Match
Best Local Similarity
Matches 107; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09142583A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TY: ARLINGTON
  Conservative
                       95.7%;
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    1;
    Score 572.5; DB 3;
Pred. No. 2.2e-60;
1; Mismatches 2;
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                                        DB 3;
        Indels
                                            Length
                                               121;
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        Gaps
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1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60

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RESULT 2
US-07-953-230A-10
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Best Local S
Matches 8.6
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Patent No. 5476779
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UNDER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435
CLASSIFICATION: 435
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: CHEN, Thomas T
APPLICANT: SHAMBLOTT, Michael J
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                            NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                               OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                COPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                             CULE TYPE:
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                                                                    33
                              61 CAPLKPAKSARSVRAQRHTDMPKTQK 86
                                                                                                                                          8.6;
                                                                                                      1 GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : 137 amino acids
amino acid
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                                                                     GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 92
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   CAPLKPAKSARSVRAQRHTDMPKTQK 118
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George Mason Bldg., Washington & Prince Sts.
                                                                                                                                        Conservative
                                                                                                                                                                                                                                                 Peptide
116
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                           protein
                                                                                                                                                           78.3%;
                                                                                                                                                                                                                                /note= "Gap of 27 after 116."
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                                                                                                                                                           Score 468;
Pred. No.
                                                                                                                                                                                                                                                                                                   "Gap of 1 after 31."
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                                                                                                                                           Mismatches
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2
                                                                                                                                                            6.4e-48;
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RESULT 3
US-08-950-720A-9
RESULT 4
US-08-219-878A-1
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                                                                                                                                                                                                               ; MOLECULE TYPE:
US-08-950-720A-9
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Best Local (
                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: US
ZIP: 98102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: ZY
                                                                                                                                                                                                                                                                                                                                                                          NAME: Sawislak, Deborah A REGISTRATION NUMBER: 37,438 REFERENCE/DOCKET NUMBER: 96
                                                                                                                                                                                                                                                                  TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                       STRANDEDNESS: single
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5. 6046028
                                                    83
                                                                             61 CAPLKPAKSARSVRAQRHTDMPKTQK 86
                                                                                                      23 GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                           96;
                                                                                                                                                           Similarity 100.
86; Conservative
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                                                                                                                                  GPETICGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                    CAPLKPAKSARSVRAQRHTDMPKTQK 108
                                                                                                                                                                                                                                                                                  152 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lofton-Day, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZymoGenetics, Inc.
01 Eastlake Avenue East
                                                                                                                                                                                                                                                                                                                                                  206-442-6672
                                                                                                                                                                                                                            No. 6046028e
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100.0%; F-
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                                                                                                                                                                        Score 468; DB 3; ; Pred. No. 7.3e-48;
                                                                                                                                                                                                                                                                                                                                                                             96-09
                                                                                                                                                             Mismatches
                                                                                                                                                                                     Length 152
                                                                                                                                                             Indels
                                                                                                                                                           0;
                                                                                                                                                             Gaps
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Sequence 1, Application US/08219878A
Patent No. 5473054
GENERAL INFORMATION:
APPLICANT: Bradford A. Jameson and TITLE OF INVENTION: IGF-1 Analogous INVENTIO

A. Jameson and Renato Baserga IGF-1 Analogs

60

CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock

ADDRESSEE:

Woodcock Washburn Kurtz Mackiewicz & No. 5473054ris NUMBER OF SEQUENCES:

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TOPOLOGY:
US-08-219-878A-1
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Tocal Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    equence 1, Application PC/TUS9304329
GENERAL INFORMATION:
APPLICANT: Bradford A. Jameson and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNALIAND MARK DELUCA
NAME: MARK DELUCA
REGISTRATION NUMBER: 33,229
REFERENCE/DOCKET NUMBER: TJU-
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (215) 568-34: INFORMATION FOR SEQ ID NO:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/88:
FILING DATE: 08-MAY-92,
ATTORNEY/AGENT INFORMATION:
NAME: Mark DeLuca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 30-MAR-1994
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/881,524
FILING DATE: 08-MAY-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: IGF-1 Analogs NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 153
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                                                                                                                                         SOFTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US
                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: DISKETTE, 3.5 INCH, COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Woodcock Washburn
ADDRESSEE: Kurtz Mackiewicz & Norris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                 COMPUTER: IBM PS/
OPERATING SYSTEM:
                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ch 78.3%; Score 468; DB 1; I similarity 100.0%; Pred. No. 7.3e-48; 86; Conservative 0; Mismatches 0;
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PA
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                                                                                                                                                                                                                                                                                                          USA
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                                                            07/881,524
                                                                                                                                             PCT/US93/04329
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; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-142-583A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11, Application US/09142583A Patent No. 6221842 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (215) 568-3439 INFORMATION FOR SEQ ID NO:
                                                                                                                 INFORMATION FOR SEQ ID NO: 11: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 33,229
REFERENCE/DOCKET NUMBER: TU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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TYPE: AMI
TOPOLOGY:
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                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/GB97/00658
FILING DATE: 11-MAR-1997
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: 7038164000
TELEFAX: 7038164100
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: GOLDSPINK, GEOFFREY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 CAPLKPAKSARSVRAQRHTDMPKTQK 134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GPETICGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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                                                                                                                                                                                                                  NAME: SADOFF, B. J.
REGISTRATION NUMBER: 36663
REFERENCE/DOCKET NUMBER: 117-263
                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/142,583A FILING DATE: 29-Oct-1998 CLASSIFICATION: <Unknown>
                                                                         LENGTH: 156 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: ARLINGTON STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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ER: TJU-0649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METHOD OF TREATING MUSCULAR DISORDERS
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Query Match 78.3%; Score 468; DB 3; Best Local Similarity 100.0%; Pred. No. 7.5e-48; Matches 86; Conservative 0; Mismatches 0;

Length 156;

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RESULT 7
5405942-1
;Patent No. 5405942
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US-08-989-251-41
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Patent No. 6017731
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPAX: 919 881 3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/65,673
FILING DATE: 16-UN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 630,557
FILING DATE: 19-UUL-1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BELL, GRAEME I.; RALL, LESLIE B.; MERRYWEATHER
                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: PREPRO INSULIN-LIKE GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                                                                                                                                                                                                                                             STREET: 3605 Glenwood
CITY: Raleigh
                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Bell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAPLKPAKSARSVRAQRHTDMPKTQK 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDHRRLEMY 74
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                                                                                                                                                                      US/08/989,251
                                                                                                                                                                                                            Version #1.30
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Best Local
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US-08-989-251-41
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APPLICANT: Tekamp-Olson, Patricia
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
LENGTH: 191 amino acid
                                                                                                                                                                                                                   TELEFAX: 919 881 3175 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                   ATTORNEY AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acids
TYPE: amino acid
TOPOLOGY: line-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
                                                                                                                          TYPE: amino acids
TOPOLOGY: line
OLECUre
                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 191 amino acid
                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                              MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 3605 CITY: Raleigh
                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86;
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                                                         Similarity
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GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
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nilarity 98.9%;
Conservative (
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                                          Conservative
                                                       76.5%;
98.9%;
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Pred. No. 1.7e-46;
                                        Score 457.5; DB 3; Pred. No. 1.7e-46; 0; Mismatches 0;
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CAPLKPAKSA-RSVRAQRHTDMPKTQK 86

CAPLKPAKSAKRSVRAQRHTDMPKTQK 172

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RESULT 10
US-09-528-108-41
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Patent No. 6312923
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                          Sequence 47, Application US/08460890A Patent No. 5994109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
GENERAL INFORMATION:
APPLICANT: Woo, Savio L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
ATTORNEY AGENT INFORMATION:
ANAME: Spruill, W. MUTTAY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPHONE: 919 430 2202
TELEPHONE: 919 81 3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/528,108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADUM:
STREET: 300
STREET: 300
Raleigh
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                                                                                                                               146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
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98.9%;
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Pred. No. 1.7e-46;
O; Mismatches O
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US-08-167-641C-47
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                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Woo, Savio L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
ITILE OF INVENTION: NUCLEIC ACID TR
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 47, Application US/08167641C Patent No. 6033884
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 07/855,389
APPLICATION NUMBER: 07/855,389
APPLICATION NUMBER: PCT/US93/02725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS LENGTH: 78 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 212/
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: FastSEQ for Windows 2.0
CURRENT APPLICATION DATA:
TOTAL 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette,
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
hes 75; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08, FILING DATE: June 5, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 78 amino acids
TYPE: amino acid
STREET: Suite 4700
CITY: Los Angeles
STATE: California
                                                                                                                  ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64 LKPAKSARSVRAQRHTD
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ilarity 97.4%;
Conservative
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Pred. No. 1.4e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOS 5.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.44 Mb
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                                                                                                                                                                                                                                                                                                                              TRANSPORTER SYSTEMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
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RESULT 13
US-08-460-971A-47
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Patent No.
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OPERATING DATA:
APPLICATION DATA:
APPLICATION UNMBER: US/08/167,641C
FILING DATE: December 14, 1993
CLASSIFICATION DATA:
APPLICATION NUMBER: 07/855,389
PRIOR APPLICATION NUMBER: 07/855,389
PRILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02725
APPLICATION NUMBER: PCT/US93/02725
APPLICATION NUMBER: 30,327
REFERENCE/DOCKET NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 305/012
TELLECOMMUNICATION INFORMATION:
TELLEPHONE: (213) 489-1600
TELLEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Woo, Savio L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (213) 955-0440
TELEX: 67-3510
INFORMATION FOR SEQ ID NO: 4
                                                                                   COUNTRY: U.S.A.
ZIP: 90071-2066
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND TITLE OF INVENTION: METHODS OF USE NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 90071-2066
COMPUTER READABLE FORM:
COMPUTER: S.S" Diskette, 1.44 Mb
MEDIUM TYPE: storage
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM COMPATIBLE SYSTEM: IBM P.C. DOS 5.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                               ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: FastSEQ for Windows 2.0
RRENT APPLICATION DATA:
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                                                                                                                                                                                                      CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 LRPARSARSVRAQRHTD 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 LKPAKSARSVRAQRHTD 80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCAP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08460971A
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                                                                                                                                                                                                                                                                            Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 412; DB 3; Length 78; Pred. No. 1.4e-41; 2; Mismatches 0; Indels
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US-08-462-040-47; Sequence 47, A
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US-08-460-971A-47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 617554
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 68.9%;
Best Local Similarity 97.4%;
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 08/167,641
FILING DATE: December 14, 1993
APPLICATION NUMBER: 07/855,389
FILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02725
FILING DATE: March 19, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 212/063
TELEPHONE: (213) 489-1600
TELEPHONE: (213) 955-0440
COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: FeatSEQ for Windows 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/462,040
FILING DATE: June 5, 1995
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 08/167,641
FILING DATE: December 14, 1993
FILING DATE: December 14, 1993
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TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                             ZIP: 90071-2066
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette,
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Lyon & Ly
                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND TITLE OF INVENTION: METHODS OF USE
                                                                                                                                                                                                                                                                                                                STREET: Suite 4700
CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: June 9
                                                                                                                                                                                                                                                                           COUNTRY: U.S.A. ZIP: 90071-2066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64 LKPAKSARSVRAQRHTD 80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7, Application US/08462040 6177554
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Pred. No. 1.4e-41;
2; Mismatches 0
                                                                                                                                                                                                                                      1.44 Mb
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SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
FYPE: amino acid
STRANDEDNESS: single
COPOLOGY: linear
MOLECULE TYPE: peptide
US-08-462-040-47
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US-07-953-230A-9
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PATENT NO. 5476779

GENERAL INFORMATION:
APPLICANT: CHEN, Thomas T
APPLICANT: SHAMBLOTT, Michael J
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 75; Conserv
                                                                                                                                        ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIAN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: CTAINE-FEULY, Sharon E
REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 028755-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-6620
                                                     INFORMATION FOR SEQ ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 176 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 212/078
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
TELEPAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 07/855,389
FILING DATE: March 20,1992
APPLICATION NUMBER: PCT/US93/02725
FILING DATE: March 19, 1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Warburg, Richard J. REGISTRATION NUMBER: 32,3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Virginia COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: George Mason Bldg., Washington & Prince Sts.
                  TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 LKPAKSARSVRAQRHTD 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 TLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMYCAP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPARSARSVRAQRHTD 78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67-3510
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linear
                single
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Search completed: March Job time: 14.9157 secs

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                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                 y Match 66.6%; Score 398; DB 1; Length 176;
Local Similarity 62.8%; Pred. No. 1.7e-39;
hes 76; Conservative 10; Mismatches 19; Indels
165 S 165
                                       105 T 105
                                                                             105 CAPVKSGKAARSVRÄQRHTDMPRTPKVSTAVQSVDRGTERRTAQHPDKTKPKKEVHQKNS 164
                                                                                                              61 CAPLKPAKSARSVRAQRHTDMPKTQKY-----
                                                                                                                                                          45 GPETICGABIVDTIQFVCGERGFYFSKETGYGPSSRRSHNRGIVDECCFQSCELRRLEMY 104
                                                                                                                                                                                   1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                  ---- OPPSTNKNTKSORRKGS 104
                                                                                                                                                                                                                                          Indels 16;
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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

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2560 93.6 195 1 IGHU1B 20.31.5 84.2 133 2 A40959 49.4 82.6 181 2 A27801 46.8 78.3 13.7 1 A36552 46.8 78.3 13.7 2 A36552 46.8 78.3 15.3 1 IGHU1 64.5 77.4 15.3 2 S12825 46.3 77.4 15.3 1 IGHU1 64.5 76.1 13.8 2 S22863 45.5 76.1 15.4 2 A33.99 40.1 67.1 17.5 2 A41.99 40.1 67.1 17.5 2 A41.99 40.1 67.1 188 2 A54270 40.1 67.1 189 2 A54270 40.1 67.1 189 2 A46244 40.2 21.4 2 B46244 40.5 49.9 13.3 2 A56485 40.9 13.5 2 A66244 40.5 44.2 21.4 2 B46244 40.5 44.2 21.4 2 B46244 40.5 44.2 21.4 2 B46244	e of the result be score distributi	e: PIR 78:* 1: pir1:* 2: pir2:* 3: pir3:* 4: pir4:* 4: pir4:*	st-processing: Minimum Match 0 Maximum Match 1 Listing first 4	Total number of hits satisfying chosen parameters: 283366 Minimum DB seq length: 0 Maximum DB seq length: 2000000000	rched: 283366 seqs, 96191526 residues	Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5	Title: US-09-852-261-2 Perfect score: 598 Sequence: 1 GPETLCGAELVDALQFVCGDSTNKNTKSQRRKGSTFEEHK	Run on: March 3, 2004, 07:50:54; Search time 11.5964 (without alignments 912.445 Million cel	OM protein - protein search, using sw model	
ulin-like gro	: m ⊢- o	to have a		36			RKGSTFEEHK 110	596 cent		

45	44	43	42	41	40	39	38	37	36	ω 5	34	ω G	32	31	30
159.5	178	200	207	212.5	219.5	219.5	225.5	228	228.5	229.5	231	233	235	235	241
26.7	29.8	33.4	34.6	35.5	36.7	36.7	37.7	38.1	38.2	38.4	38.6	39.0	39.3	39.3	40.3
50	44	9	210	79	183	139	183	181	93	180	180	180	155	128	179
Ь	N	N	N	N	ผ	N	N	N	N	H	_	N	-ب	N	N
INFIS	A34049	A60740	S66484	I51240	167610	A38612	S02423	B60738	I53642	IGRT2	IGHU2	A24913	IGBO2	I57671	S04858
insulin - sho	insulin-like						insulin-like		insulin-like	insulin-like	insulin-like	insulin-like		insulin-like	
shorthor	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt	growt

## ALIGNMENTS

A;Cross-references: GB:X56774; GB:S61860; NID:g33991; PIDN:ChA40093.1; PID:g32992  A;Experimental source: anaplastic oligodendroglioma e growt A;Note: sequence modified after extraction from NCBI backbone e growt A;Note: the authors translated the codon CAG for residues 124 and 133 as Glu e growt E growt R;Siegfried, J.M.; Kasprzyk, P.G.; Treston, A.M.; Mulshine, J.L.; Quinn, K.A.; Cu e growt Proc. Natl. Acad. Sci. U.S.A. 89, 8107-8111, 1992 e growt A;Title: A mitogenic peptide amide encoded within the E peptide domain of the ins e growt A;Reference number: A42664; MUID:23290398; PMID:1325646	A;Residues: 1-195 <rot2> A;Cross-references: GB:M11568; NID:g183111; PIDN:AAA525: e growt e growt     R;Sandberg Nordqvist, A.C.; Stahlbom, P.A.; Lake, M.; Sa e growt e growt     A;Description: Nucleotide sequence of the human fetal by A;Description: Nucleotide sequence of the human fetal by A;Reference nordqvist S30540 e growt     A;Accession: S30540 e growt A;Accession: S30540 e growt A;Cross-reference: EMBL.X56774; NID:g32991; PIDN:CAA400 e growt e growt A;Cross-reference: EMBL.X56774; NID:g32991; PIDN:CAA400 e growt e growt A;Cross-reference: EMBL.X56774; NID:g32991; PIDN:CAA400 e growt c growt A;Randberg-Nordqvist, A.C.; Stahlbom, P.A.; Reinecke, M. Cancer Res. 53, 2475-2478, 1993 e growt A;Title: Characterization of insulin-like growth factor A;Reference number: A48960; MUID:93265440; PMID:8495408 A;Accession: B48960 A;Molecule type: mRNA A;Residues: 1-195 <s8a2></s8a2></rot2>	RESULT 1 IGHUIB INSULT 1 IGHUIF INSULT 1 IGHUIF INSULT 1 IGHUIB INSULT 1 IN	
	A;Residues: 1-195 (ROT2) A;Cross-references: GB:ML1568; NID:g183111; PIDN:AAA52539.1; PID:g183112 A;Cross-references: GB:ML1568; NID:g183111; PIDN:AAA52539.1; PID:g183112 R;Sandberg Nordqvist, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R. submitted to the EMBL Data Library, November 1990 A;Description: Nucleotide sequence of the human fetal brain IGF-1b. A;Reference number: S30540 A;Recession: S30540 A;Recession: S30540 A;Residues: 1-195 (SAN) A;Residues: 1-195 (SAN) A;Residues: 1-195 (SAN) A;Coss-references: EMBL:X56774; NID:g32991; PIDN:CAA40093.1; PID:g32992 A;Cross-references: EMBL:X56774; NID:g32991; PIDN:CAA40093.1; PID:g32992 A;Cancer Res. 53, 2475-2478, 1993 Cancer Res. 53, 2475-2478, 1993 Cancer Res. 53, 2475-2478, 1993 A;Tille: Characterization of insulin-like growth factor 1 in human primary brain tumors A;Reference number: A48960; MUID:93265440; PMID:8495408 A;Accession: B48960 A;Molecule type: mRNA	RESULT 1 IGHULB IGHULB N;Alternate names: IGF-IB; somatomedin C N;Alternate names: IGF-IB; somatomedin C N;Contains: insulin-like growth factor IB-E1 amide C;Species: Homo sapiens (man) C;Accession: A01611; A26181; S30540; B48960; A42664 C;Accession: A01611; A26181; S30540; B48960; A42664 C;Accession: A01611; A26181; S30540; B48960; A42664 C;Accession: A01610ck, K.M.; Didier, D.K.; Krivi, G.G. J. Biol. Chem. 261, 4828-4832, 1986 A;Fitle: Organization and sequence of the human insulin-like growth factor I gene. Altern A;Fitle: Organization and sequence of the human insulin-like growth factor I gene. Altern A;Reference number: A92581; MUID:86168194; PMID:2937782 A;Recession: A01611 A;Recession: Type: DAA A;Recession: A01612 A;Rotwein, P. R;Rotwein, P. R;Rotwein, P. A;Reference number: A26181; MUID:86094355; PMID:3455760 A;Accession: A26181 A;Molecule type: mRNA A;Molecule type: mRNA	

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A;Cross-references: GDB:120081; OMIM:147440
A;Map position: 12q22-12q4.1
A;Map position: 12q22-12q4.1
A;Aintrons: 213; 74/1; 134/3
C;Superfamily; insulin
C;Keywords: alternative splicing; amidated carboxyl end; growth factor; plasma
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-48/Domain: signal sequence #status predicted <CHB>
F;49-71/Domain: propeptide #status predicted <CHB>
F;49-71/Domain: insulin chain B-like #status predicted <CHB>
F;49-71/Domain: insulin chain B-like #status predicted <CHC>
F;78-89/Domain: insulin chain A-like #status predicted <CHA>
F;111-118/Domain: insulin chain A-like #status predicted <CHB>
F;111-118/Domain: Deptide #status predicted <CHD>
F;111-172/Product: insulin-like growth factor IB-E1 amide #status predicted <F;54-96,66-109,95-100/Disulfide bonds: #status predicted
F;172/Modified site: amidated carboxyl end (Arg) (amide in mature form follo
                                                                                                                                                                       insulin-like growth factor I precursor form 1 - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Date: 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: A40912
                                                                                                                                                                                                                                                                       RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:X06107; GB:M32260; GB:Y00429; NID:g56424; PIDN:CAA29480.1; PID:g5C;Superfamily: insulin C;Keywords: alternative splicing; growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic Acids Res. 15, 7196, 1987
A;Title: Sequence of two rat insulin-like growth factor I A;Reference number: A26859; MUID:88015572; PMID:3658684
A;Accession: A26859
A;Molecule type: mRNA
A;Residues: 1-159 <SHI>
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988
C;Accession: A26859
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                                                                                                                  R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., Mol. Endocrinol. 1, 243-248, 1987
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                                                                                                  A; Title: Molecular cloning of rat insulin-like growth factor
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Best Local S
Matches 99
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Best Local Sim
Matches 103;
Status: preliminary;
                       Reference number: A40912; Accession: A40912
                                                                             tissues.
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                                                                                                                                                                                                                                                                                                                                                                                                                          CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFBEHK 110
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89.2%;
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                                                       MUID:88288198; PMID:3453891
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Pred. No. 4.5e-47;
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                             A;Molecule type: mRNA
A;Residues: 1-137 <BEL>
A;Cross-references: EMBL:X52951
                                                                                                                                                  insulin-like growth factor I precursor - guinea ()Species: Cavia porcellus (guinea pig) ()Species: Cavia porcellus (guinea pig) ()C;Date: 30-Sep-191 #sequence_revision 30-Sep-19 ()Accession: S12719 ()Accession: S12719 ()Accession: Stempien, M.M.; Fong, N.M.; Seino, Nucleic Acids Res. 18, 4275, 1990 ()Accession: Sequence of a CDNA encoding guinea pig A;Title: Sequence of a CDNA encoding guinea pig
                                                                                                                             A;Title: Sequence of a cDNA encoding guinea pig IGF-I. A;Reference number: S12719; MUID:90332447; PMID:2377480
                                                                                                          A; Accession: S12719
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it is uncertain

whether

Met-1

or

Met-8

is the initiator

30-Sep-1991

#text\_change 07-Nov-1997

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C;Keywords: alternative splicing
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A,Reference number: I52218; MUID:8729853; PMID:3619921
A,Accession: I6520
A,Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                insulin-like growth factor I precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 09-Jun-1988 #sequence revision 09-Jun-1988 #text_change 16-Jul-1999
C;Accession: A27804; 165202
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A;Cross-references: GB:M17594; NID:g204759; PIDN:AAA41390.1; PID:g204760
                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
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A; Title: Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Biol. Chem. 262, 7894-7900, 1987
A;Title: Mosaic evolution of the insulin-like growth factors.
A;Reference number: A27804; MUID:87222423; PMID:3034909
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A;Molecule type: DNA
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                                                                                                                                                                  Local
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109 CAPLKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGESKAH
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                                                                                                                                                  92;
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                                  CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKGSTFEEH
                                                                        GPETLCGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                        GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                Score 494; DB Pred. No. 3.8e 4; Mismatches
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C:Keywords: glycoprotein; growth factor; plasma F;1-37/Domain: signal sequence #status predicted <SIG> F;3-37/Domain: signal sequence #status predicted <CHB> F;33-61/Domain: insulin chain B-like #status predicted <CHB> F;62-73/Domain: insulin connecting C peptide-like #status predicted <CHC> F;62-73/Domain: insulin chain A-like #status predicted <CHA> F;74-94/Domain: insulin chain A-like #status predicted <CHB> F;95-102/Domain: D peptide #status predicted <CHD> F;103-137/Domain: carboxyl-terminal propeptide (E peptide) #status predicted F;124/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                insulin-like growth factor I precursor, splice form A [validated] - human N;Alternate names: IGF-I long splice form precursor; IGF-IA; somatomedin C C;Species: Homo sapiens (man) C;Date: 24-Apr-1984 #sequence_revision 30-Jun-1987 #text_change 31-Dec-2000 C;Accession: A92581; A23614; A33221; JT0571; A33622; A92226; A60483; S30519; R;Rotwein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G. J. Biol. Chem. 261, 4828-4832, 1986 A;Title: Organization and sequence of the human insulin-like growth factor I A;Reference number: A92581; MUID:86168194; PMID:2937782 A;Accession: A92581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           insulin-like growth factor la precursor - human C;Species: Homo sapiens (man) C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 C;Accession: A36552
A;Molecule type: DNA
A;Residues: 1-153 <ROT>
A;Residues: 1-153 <ROT>
A;Cross-references: GB.M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
A;Cross-references: GB.M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
R;de Pagter-Holthuizen, P.; van Schaik, F.M.A.; Verduijn, G.M.; van Ommen,
FEBS Lett. 195, 179-184, 1986
FEBS Lett. 195, 179-184, 1986
A;Title: Organization of the human genes for insulin-like growth factors I
A;Teference number: A91356; MUID:86108862; PMID:3002851
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A;Residues: 1137 <TOB>
A;Cross_references: GB:M37484; NID:g184833; PIDN:AAA52789.1; PID:g184834
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A;Title: A novel human insulin-like growth factor I messenger RNA is expressed in
A;Reference number: A36552; MUID:91187000; PMID:2082190
A;Accession: A36552
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Pred. No. 1.5e-41;
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Pred. No. 1.5e-41;
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A;Molecule type: mRNA
A;Residues: 24-153 <RAL>
A;Cross-references: GB:M29644; NID:g183119; PIDN:AAA52543.1; PID:g183120
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A;Cross-references: EMBL:X56773; NID:g32989; PIDN:CAA40092.1; PID:g32990
R;Sandberg-Nordqvist, A.C.; Stahlbom, P.A.; Reinecke, M.; Collins, V.P.; von Holst, H.; Cancer Res. 53, 2475-2478, 1993
A;Title: Characterization of insulin-like growth factor 1 in human primary brain tumors.
A;Reference number: A48960; MUID:93265440; PMID:8495408
A;Accession: A48960
A;Molecule type: mRNA
A;Residues: 1-123,'E',134-153 <SAN'
A;Cross-references: G8:X56773; G8:S61841; NID:g32989
A;Experimental source: anaplastic oligodendrogiloma
A;Note: sequence extracted from NCBI backbone (NCBIN:133056, NCBIP:133057)
A;Note: sequence inconsistent with the nucleotide translation
R;Rail, L.B.; Scott, J.; Bell, G.I.
R;Rail, L.B.; Scott, J.; Bell, G.I.
A;Reference number: 157044; MUID:88065102; PMID:3683205
A;Accession: I57044
A;Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
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A;Residues: 49-53,'X',55-65,'X',67-75 <KAR>
A;Residues: 49-53,'X',55-65,'X',67-75 <KAR>
A;Residues: Surce: platelet lysate
A;Nordqyist Sandberg, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
submitted to the EMBL Data Library, November 1990
A;Description: Nucleotide sequence of the human fetal brain IGF-
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Blood 74, 1084-1092, 1989
A;Title: Human platelet-derived mitogens. Identification of insulinlike growth factors A;Reference number: A60483; MUID:89323462; PMID:2752153
A;Accession: A60483
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A;Residues: 1-153 <LEB>
A;Residues: 1-153 <LEB>
A;Cross-references: GB:M27544; NID:g184829; PIDN:AAA52787.1;
A;Cross-references: GB:M27544; NID:g184829; PIDN:AAA52787.1;
A;Rinderknecht, E.; Humbel, R.E.
J. Biol. Chem. 253, 2769-2776, 1978
A;Title: The amino acid sequence of human insulin-like growth
A;Reference number: A92226; MUID:78130171; PMID:632300
A;Accession: A92226
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A;Cross-references: EMBL:X57025; NID:g33007; PIDN:CAA40342.1; PID:g33008
R;Le Bouc, Y.; Dreyer, D.; Jaeger, F.; Binoux, M.; Sondermeyer, P.
FBBS Lett. 196, 108-112, 1986
A;Title: Complete characterization of the human IGF-I nucleotide sequence
A;Reference number: A23622; MUID:86108910; PMID:2935423
A;Accession: A23622
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A;Residues: 1-153 < JAN>
A;Cross-references: GB:X00173; NID:g33015; PIDN:CAA24998.1; PID:g33016
A;Cross-references: GB:X00173; NID:g33015; PIDN:CAA24998.1; PID:g33016
A;Cross-references: GB:X00173; NID:g33015; PID:g33016
A;Steenbergh, P.H.; Koonen-Reemst, A.M.C.B.; Cleutjens, C.B.J.M.; Sussenbach, J.S.
Biochem. Biophys. Res. Commun. 175, 507-514, 1991
A;Title: Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.
A;Reference number: JT0571; MUID:91207342; PMID:2018498
A;Accession: JT0571
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A;Title: Sequence of cDNA encoding human insulin-like growth A;Reference number: A93321; MUID:84068210; PMID:6358902
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A;Residues: 24-153 <DEP>
A;Cross-references: GB:X03420; GB:X00362; NID:g33020; PIDN:CAA27152.1; PID:g33021; R;Jansen, M.; van Schaik, F.M.A.; Ricker, A.T.; Bullock, B.; Woods, D.E.; Gabbay, i
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A;Molecule type: DNA
A;Residues: 24-153 <
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A; Accession: S30519
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                                                                                                                                                               isolation of complement
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K.H.; 1
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A, Cross-references: GDB:120081; OMIM:147440
A, Cross-references: GDB:120081; OMIM:147440
A, Map position: 12q22-12q24.1
A, Introns: 21/3; 74/1; 134/3
C, Superfamily: insulin
C, Keywords: alternative splicing; growth factor; plasma
C, Keywords: alternative splicing; growth factor glasma
C, Keywords: alternative splicing; growth factor f
R;Francis, G.L.; Owens, P.C.; McNeil, K.A.;
J. Endocrinol. 122, 681-687, 1989
A;Title: prification, amino acid sequences
A;Reference number: A60738; MUID:90039035; E
A;Accession: A60738
A;Molecule type: protein
A;Residues: 49-117,'X' <FRA>
C;Genetics:
                                                                                                                                                                              A;Reference number: A34938; MUID:89096956; PMID:3211153
A;Accession: A34938
A;Molecule type: mRNA
A;Residues: 'Y',21-153 <TAV>
A;Cross references: GB:M31175
A;Cross references: GB:M31175
CR;Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.(
J. Endocrinol. 122, 681-687, 1989
D. Endocrinol. 122, 681-687, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              insulin-like growth factor I precursor - pig
N;Alternate names: somatromedin C
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 13-Jan-1995 #sequence revision 13-Jan-1995
C;Accession: S12825; S21488; A34938; A60738
R;Mueller, M.; Brem, G.
Ruccleic Acids Res. 18, 364, 1990
Nucleic Acids Res. 18, 364, 1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:X17638; NID:g1995; PIDN:CAA35632.1; PID:g1996 R;Tavakkol, A.; Simmen, F.A.; Simmen, R.C.M. Mol. Endocrinol. 2, 674-681, 1988 Mol. Endocrinol. 2, 674-681, 1988 A;Title: Porcine insulin-like growth factor-I (pIGF-I): complementary A;Title: Porcine insulin-like growth factor-I (pIGF-I):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: EMBL:X52388
A;Cross-references: EMBL:X52388
R;Dickson, M.C.; Huskisson, N.S.; Gilmour, R.S.
submitted to the EMBL Data Library, November 1989
A;Description: Porcine Insulin-like growth factor gene:
A;Reference number: S21488
A;Accession: S21488
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A; Residues: 1-21 < DIC>
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A; Residues: 1-153 < MUE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAPLKPAKSARSVRAORHTDMPKTQK 86
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Pred. No. 1.6e-41;
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                                                                                                                                                                                                                            Wallace, J.C.;
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                                                                                                                                                                                                                                                       C)Species: Bos primigenius taurus (cattle)
C,Date: 31-Mar-1988 #sequence revision 28-Apr-1995 #text_change 18-Jun-1999
C,Accession: S12672; A25623; S04465
R,Fotsis, T.; Murphy, C.; Gannon, F.
Nucleic Acids Res. 18, 676, 1990
A;Title: Nucleotide sequence of the bovine insulin-like growth factor 1 (IG)
A,Reference number: S12672; MUID:90175014; PMID:2308858
A;Accession: S12672
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Gene 130, 305-306, 1993
A;Title: Sequence of a
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                                                                        A;Molecule type: mRNA
A;Residues: 1-153 <FOIT
A;Cross-references: EMBL:X15726; NID:g454; PIDN:CAA33746.1; PID:g455
A;Experimental source: liver
R;Honegger, A.; Humbel, R.E.
J. Biol. Chem. 261, 569-575, 1986
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A; Residues: 1-122 < DEL>
C; Comment: This protein
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N;Alternate names: IGF-I; somatomedin C
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;20-89/Product: ir
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Insulin-like
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06, 1993
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   569-575, 1986
ke growth factors I and II in fetal .
A92585; MUID:86085881; PMID:3941093
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and

adult

bovine

Purific

factor 1 (IGF-1) and

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A;Introns: 21/3; 74/1
C;Superfamily: insulin
C;Superfamily: insulin
C;Keywords: growth factor
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-48/Domain: propeptide #status predicted <PRO>
F;49-153/Product: insulin-like growth factor IA #status experimental
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                                           GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAPIKPAKSARSVRAQRHTDMPKTQK-----YQPPSTNKN 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                  insulin-like growth factor Ia (fragment) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H.; Harrison, D.G.; Bernstein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 464.5; DB Z;
Pred. No. 3.8e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-Mar-1994 #text_change 07-May-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  insulin-like growth
2; PMID:8359700
                                                                                                                               4.4e-41;
                                                                                                                                                                 DB
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RESULT 12
S22878
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Mikawa, S.; Yoshikawa, G.; Aoki, H.; Yamano, Y.; Sakai, H.; Komano, T. Biosci. Biotechnol. Biochem. 59, 87-92, 1995
A;Title: Dynamic aspects in the expression of the goat insulin-like growth factor-I A;Reference number: JC2483; MUID:95201385; PMID:7765981
A;Accession: JC2483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: insulin
F;1-49/Domain: signal sequence #status predicted <SIG>
F;50-119/product: insulin-like growth factor-I #status predicted
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A; Residues: 1-154 <MIK>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            insulin-like growth factor-I precursor - goat
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 16-Mar-1995 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
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iochem. J. 251, 95-103, 1988
iochem. J. 251, 95-103, 1989
iochem. J. 251, 95-103, 1989
iochem. J. 251, 1989
iochem. J. 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Experimental source: colostrum
Note: a form of IGF-I lacking the first three residues
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Residues: 49-118 <FRA>
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Best Local :
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
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Similarity 97.7%;
84; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                             GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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Pred. No. 1.4e-40;
0; Mismatches 2;
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Pred. No. 5.4e-41;
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C;Superfamily: insulin
C;Reywords: alternative splicing; growth factor; plasma
C;Reywords: alternative splicing; growth factor I (active) #status experimental <MAT>
F;7-33/Domain: propeptide #status predicted <DOB>
F;34-103/Product: insulin chain B-like #status predicted <DOB>
F;34-62/Domain: insulin connecting peptide-like #status predicted <CHC>
F;63-74/Domain: insulin connecting peptide-like #status predicted <CHC>
F;75-95/Domain: insulin chain A-like #status predicted <DOB>
F;75-103/Domain: peptide D #status predicted <CHD>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F;104-138/Domain: poptide D propeptide (E peptide) #status predicted <CTP>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
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J. Mol. Endocrinol. 6, 17-31, 1991
A;Title: The ovine insulin-like growth factor-I gene: cl
A;Reference number: S22877; MUID:91197361; PMID:2015053
A;Accession: S22878
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-138 <DIC.
A;Residues: 1-138 <DIC.
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A;Molecule type: mRNA
A;Residues: 1-43,'SS',46-154 <WON>
A;Residues: 1-43,'SS',46-154 <WON>
A;Cross-references: GB:M30653; NID:g165929; PIDN:AAA80532.1; PID:
A;Cross-references: GB:M30653; NID:g165929; PIDN:AAA80532.1; PID:
A;Cross-references: GB:M30653; NID:g165929; PIDN:AAA80532.1; PID:
B;Cross-references: GB:M30653; PID:
B;Cross-referenc
                                                                                                                                                                                                                                                                                      A;Title: Cloning of ovine insulin-like growth factor-I cDNAs: A;Reference number: A33390; MUID:90126234; PMID:2575490 A;Accession: A33390
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A; Title: The ovine insulin-like growth factor-I gene: c
A; Reference number: $22877; MUID:91197361; PMID:2015053
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C;Superfamily: insulin
C;Keywords: alternative spl
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R;Wong, E.A.; Ohlsen, S.M.; Godfredson, J.A.; Dean, D.M.; Wheaton, DNA 8, 649-657, 1989
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A; Residues: 1-154 < DIC>
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97.7%;
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Pred. No. 3.4e-40;
0; Mismatches 2
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#text_change 23-Jul-1999
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               and II from adult
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C;Superfamily: insulin
C;Kupwords: alternative splicing; growth factor; plasma
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-49/Domain: propeptide #status predicted <PRO>
F;20-719/Product: insulin chain B-like #status predicted <DOB>
F;50-78/Domain: insulin chain B-like #status predicted <DOB>
F;79-90/Domain: insulin connecting peptide-like #status predicted <CHC>
F;99-111/Domain: insulin chain A-like #status predicted <DOA>
F;911-111/Domain: insulin chain A-like #status predicted <PRO>
F;112-119/Domain: peptide D #status predicted <PRO>
F;120-154/Domain: carboxyl-terminal propeptide (E peptide) #status predicted
F;55-97,67-110,96-101/Disulfide bonds: #status predicted
                                                                                                                                                                                   A;Cross-references: GB:M17335; NID:g204751; PIDN:AAA41386.1; PID:g204752 R;Kato, H.; Okoshi, A.; Miura, Y.; Noguchi, T. Agric. Biol. Chem. 54, 1599-1601, 1990 A;Title: A new cDNA clone relating to larger molecular species of rat in A;Reference number: JH0133; MUID:91103966; PMID:1368571 A;Accession: JH0133; MUID:91103966; PMID:1368571
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A;Title: Sheep insulin-like growth factors I and II: sequences, activities A;Reference number: S07198; MUID:89136887; PMID:2537174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-153 <SHI>
A;Cross-references: GB:M15651; GB:J02743; NID:g204297; PIDN:AAA41215.1; PID:g204300
R;Casella, S.J.; Smith, E.P.; Van Wyk, J.J.; Joseph, D.R.; Hymes, M.A.; Hoyt, E.C.; Lund
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Shimatsu, A.; Rotwein, P.
J. Biol. Chem. 262, 7994-7900, 1987
A;Title: Mosaic evolution of the insulin-like growth factors. Organization, sequence, A;Reference number: A27804; MUID:87222423; PMID:3034909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Rattus norvegicus (Norway rat)
C;Date: 16-Mar-1989 #sequence revision 16-Mar-1989 #text_change 21-Jul-2000
C;Accession: 827804; A27849; JH0133; A28504; JN0088; A32857; A61096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     insulin-like growth factor IA precursor - N;Alternate names: IGF-IA; somatomedin C
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A; Residues: 50-79
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                                                           A;Molecule type: mRNA
A;Residues: 27-153 <KAT>
A;Residues: 27-153 <KAT>
A;Cross-references: GB:D00698; NID:g220780; PIDN:BAA00604.1;
A;Experimental source: liver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Isolation of rat testis cDNAs encoding an insulin-like growth factor I precurso
A;Reference number: A27849; MUID:88003970; PMID:3652906
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DNA 6, 325-330, 1
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                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 27-153 <CAS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: A27849
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hy, L.J.; Bell, G.I.; Duckworth,
inology 121, 684-691, 1987
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97.7%;
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3.7e-40;
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                                                                                                         PID:g220781
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A; Molecule type: mRNA
A; Residues: 46-153 < MUR>
A; Residues: 46-153 < MUR>
A; Cross references: GB. M17714; NID: g204324; PIDN: AAA41227.1;
A; Cross references: A.; Miura, Y.; Nishiyama, M.; Noguchi,
                                                                                                                                                                                                                                                                                                                                                                   C;Species: Mus musculus (house mouse)
C;Date: 30-Jun-1988 #sequence revision 30-Jun-1988 #text_C;Accession: A25540; I55295; I59090; B25540
R;Bell, G.I.; Scempien, M.M.; Fong, N.M.; Rall, L.B.
Mucleic Acids Res. 14, 7873-7882; 1986
A;Title: Sequences of liver cDNAs encoding two different A;Reference number: A93643; MUID:87040760; PMID:3774549
A;Accession: A25540
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A;Residues: 49-118 <TAM>
R;Canalis, E; McCarthy, T.; Centrella, M.
Endocrinology 122, 22-27, 1988
E,Title: Isolation and characterization of
A;Reference number: A61096; MUID:88082445;
A;Accession: A61096
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A;Title: Primary structure of rat insulin-like growth factor-I A;Reference number: A32857; MUID:89174609; PMID:2538424
A;Accession: A32857
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Agric. Biol. Chem. 54, 2225-2230, 1990
A;Title: Evidence of introduction by molecular cloning of A;Reference number: UN0088; MUID:91136779; PMID:1368576
R; Mathews, L.S.; Norstedt, G.; P
Proc. Natl. Acad. Sci. U.S.A. 83
                         A;Molecule type: DNA
A;Residues: 49-108 <RES>
A;Residues: 49-108 <RES>
A;Cross-references: GB:M28139; NID:g341835;
A;Cross-references: GB:M28139; NID:g341835;
A;Cross-references: GB:M28139; NID:g341835;
                                                                                                                                                                                                            A;Cross-references: GB:X04480; NID:g51801; PIDN:CAA28168.1; PID:g51802 R;TOollefsen, S.E.; Lajara, R.; McCusker, R.H.; Clemmons, D.R.; Rotwein, J. Biol. Chem. 264, 13810-13817, 1989 A;Title: Insulin-like growth factors (IGF) in muscle development. Expro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insulin-like growth factor IA precursor - N; Alternate names: IGF-IA; somatomedin C
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                                                                                                                                                         A;Reference number: I55295; MUID:89340472; A;Accession: I55295
                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-127 <BEL>
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A; Residues: 49-53, 'X', 55-65 < CAN>
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A; Residues: 'MSAPP', 22-153 <KA2>
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                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
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;Keywords: alternative splicing; growth factor
;49-118/Product: insulin-like growth factor I #status experimental
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95.3%;
  Palmiter, R.
93, 9343-9347
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Pred. No. 1.2e-39;
1; Mismatches 3
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                               b
                                                                                                                                                                                     in muscle development. Expression of IGF-I, PMID: 2474537
                                                        PIDN:AAA74553.1;
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Regulation of insulin-like

growth factor I

gene expression by growth

hormone

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A;Reference number: I59090; MUID:8709249; PMID:3467309
A;Accession: I59090
A;Scatus: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 49-108 <RE2>
A;Cross-references: GB:M14983; NID:g194495; PIDN:AAA37925.1; PID:g194496
C;Genetics:
A;Genetics:
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C;Genetics:
A;Genetics:
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         March 3, 2004, 07:55:33; Search time 150.09 Seconds (without alignments)
154.752 Million cell updates/sec
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| Cgm2_6/ptodata/1/pubpaa/US07_2: /cgm2_6/ptodata/1/pubpaa/US05_3: /cgm2_6/ptodata/1/pubpaa/US06_
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jn2_6/ptodate/1/pubpaa/US09B_PUBCOMB.pep:*
jn2_6/ptodate/1/pubpaa/US09C_PUBCOMB.pep:*
jn2_6/ptodate/1/pubpaa/US10B_PUBCOMB.pep:*
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jn2_6/ptodate/1/pubpaa/US10C_PUBCOMB.pep:*
jn2_6/ptodate/1/pubpaa/US10C_MEW_PUB.pep:*
jn2_6/ptodate/1/pubpaa/US10_NEW_PUB.pep:*
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6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
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SUMMARIES
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Result	Score	% Query Match	* Query Match Length DB	BG	ID	Description
, , ,	598	100.0	110	اً و	US-09-852-261-2	Sequence 2, Appli
N	572.5	95.7	111	ø	US-09-852-261-6	Sequence 6, Appli
ω	560	93.6	195	15	US-10-443-466A-20	Sequence 20, Appl
4	521.5	87.2	133	14	US-10-161-088-2	Sequence 2, Appli
v	494.5	82.7	111	9	US-09-852-261-4	Sequence 4, Appli
σı	468	78.3	105	9	US-09-852-261-10	10
7	468	78.3	137	14	US-10-251-661-8	
œ	468	78.3	153	9	US-09-919-497-74	
9	468	78.3	153	14	US-10-136-639-3	Sequence 3, Appli
10	468	78.3	153	14	US-10-207-655-55	Sequence 55, Appl
11	465	77.8	105	Ø	US-09-852-261-14	Sequence 14, Appl
12	463	77.4	105	14	US-10-238-114-3	
13	463	77.4	153	14	US-10-238-114-2	
14	457.5	76.5	191	ø	US-09-921-398-41	Sequence 41, Appl
15	457.5	76.5	191	14	US-10-280-826-41	9 41,
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#### ALIGNMENTS

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APPLICANT: GEDSPINK, GEOFFREY
APPLICANT: TERENCHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
VUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
RESULT 2
US-09-852-261-6
; Sequence 6, Application US/09852261
; Patent No. US20020083477A1
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US-09-852-261-2
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Patent No. US20020083477A1
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                                                                                                                                            Matches 103;
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Best Local :
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APPLICANT:
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                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/436,254
PRIOR FILING DATE: 2002-12-23
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 20
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APPLICANT: Pachter, Jonathan A
APPLICANT: Halley, Judith
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CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTMARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/383,459
PRIOR FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: 60/393,214
PRIOR FILING DATE: 2002-07-02
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APPLICANT: TERENGHI, GLORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Srinivasan, Mohan
TITLE OF INVENTION: NEUTRALIZING HUMAN ANTI-IGER ANTIBODY
FILE REFERENCE: OCC1533-K-US
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CURRENT FILING DATE: 2003-05-22
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                                                                                                                                                                                                                                                    TYPE: PRT
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                                  CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKG 103
                                                                     GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
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100.0%; Pred. No.
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Pred. No. 2e-58;
1; Mismatches
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; LENGTH: 133
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-161-088-2
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APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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Best Local S
Matches 95
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09852261
Patent No. US20020083477A1
GENERAL INFORMATION:
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LENGTH: 1:
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Best Local Similarity 89.2%;
Matches 99; Conservative
                                                                                                                                                                                                                                                                                                                      SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Rosengren, Linda
TITLE OF INVENTION: NEW METHODS
FILE REFERENCE: 13425-111001
CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT FILING DATE: 2002-05-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: SE 0101934-8
PRIOR FILING DATE: 2001-06-01
NUMBER OF SEQ ID NOS: 3
                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.1
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APPLICANT: Rosengren, Lin
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                                                                                                                                                                                                                                                          LENGTH: 111
TYPE: PRT
ORGANISM: Rattus
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19
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                                                                             1 GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                 1 GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                            95;
                                                                                                                                                                               Similarity
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                                  CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQ-RRKGSTFEEHK 110
CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                                          Conservative
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                                                                                                                                                                         82.7%;
85.6%;
                                                                                                                                                        Score 494.5; DB 9
Pred. No. 2.1e-49;
2; Mismatches 13
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Pred. No. 2e-52;
2; Mismatches
                                                                                                                                                                                              DB 9;
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                                                                                                                                                          Indels
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RESULT 6 US-09-852-261-10

Sequence 10, Application US/09852261

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GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERRIGHI, GIORGIO
IIITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
SOFTWARE: PALENTLING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PALENTLIN Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8
LENGTH: 137
TYPE: PRT
CRGANISM: Homo sapiens
US-10-251-661-8
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US-09-919-497-74
                      RESULT 8
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                                                                                                                                                                                                                                                                        Matches
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Best Local :
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Best Local :
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APPLICANT: Bear, Mark F.
INTEL OF INVENTION: Methods and Compositions for Regulating
TITLE OF INVENTION: Memory Consolidation
FILE REFERENCE: 3499.1001-03
CURRENT APPLICATION NUMBER: US/10/251,661
CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/193,614
PRIOR FILING DATE: 2001-04-02
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ORGANISM: Homo sapiens
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                                                                                                                                     61 CAPLKPAKSARSVRAORHIDMPKTOK 86
                                                                                                                                                                                                                            1 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                86
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                                                                                                                                                                                                                                                                                                      Similarity
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Sequence 74, Application US/09919497 Patent No. US20020106662A1 GENERAL INFORMATION:

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RESULT 10
US-10-207-655-55
; Sequence 55, Application US/10207655
; Publication No. US20030118592A1
; Publication No. US20030118592A1
; GENERAL INFORMATION:
; APPLICANT: Ledbetter, Jeffrey A.
; APPLICANT: Hayden-Ledbetter, Martha S.
; TITLE OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
; FILE REFERENCE: 390069.401C1
; CURRENT APPLICATION NUMBER: US/10/207,655
; CURRENT FILING DATE: 2002-07-25
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-136-639-3
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SOFTWARE: PatentIn version 3:0
SEQ ID NO 3
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Best Local
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/10/136,639
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 60/329,650
PRIOR FILING DATE: 2001-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: LeBowitz, Jonathan
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETING PROTEINS ACROSS THE BLOOD F
TITLE OF INVENTION: BARRIER
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TITLE OF INVENTION: PROGNOSTIC CLASSIFICATION OF ENDOMETRIAL CANCER
FILE REFERENCE: B0801/1725
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
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PRIOR FILING DATE: 2000-07-31
NUMBER OF SEQ ID NOS: 100
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 14
LENGTH: 105
TYPE: PRT
GRGANISM: Oryctolagus cuniculus
US-09-852-261-14
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-207-655-55
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Patent No. US20020083477A1
GENERAL INFORMATION:
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Best Local S
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APPLICANT: Merial
APPLICANT: Marial
APPLICANT: ANDREONI, Christine Michele
TITLE OF INVENTION: IGF-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE RH
FILE REPERENCE: 454313-3165.1
CURRENT FILING DATE: 2002-09-10
PRIOR APPLICATION NUMBER: FR 01 11736
PRIOR APPLICATION NUMBER: FR 01 11736
PRIOR FILING DATE: 2001-09-11
PRIOR APPLICATION NUMBER: US 60/318,666
PRIOR FILING DATE: 2001-09-12
RUMBER: PRIOR FILING DATE: 2001-09-12
SOFTWARE: Patentin version 3.1
SEQ ID NO 3
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CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 55
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APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
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l Similarity 100.0%;
86; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 98.8
85; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77.8%;
98.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 5.1e-46;
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SEQ ID NO 2
LENGTH: 153
                                                                                                                                                                                                   Sequence 41, Application US/0921398
Patent No. US2002005519A1
GENERAL INFORMATION:
APPLICANT: Tekamp-Olson, Patr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/10238114
Publication No. US20030100073A1
GENERAL INFORMATION:
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Best Local
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TYPE: PRT
ORGANISM: Fe
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NUMBER OF SEQ ID NOS: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ZIF: 27622
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil
                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                        NUMBER OF SEQUENCES: 41
                                                                                                                                                                                                                                                                                                                            109 CAPLKPAKSARSVRAQRHTDMPKAQK 134
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                                                                             STATE: NC
                                                                                           CITY: Raleigh
                                                              COUNTRY: US
                                                                                                                                                                  CANT: Tekamp-Olson, Patricia
OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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98.8%;
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98.8%;
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Pred. No. 8.7e-46;
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Pred. No. 1.4e-45;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 153;
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OPERATING SYSTEM: PC-DOS/MS-DOS

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RESULT 15
US-10-280-826-41
VS-10-280-826-41, Application US/10280826
Sequence 41, Application US/10280826
Publication No. US20030077831A1
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                 APPLICATION NUMBER: US/08/989,251
FILING DATE: «UNKNOWN»
ATTORNEY/AGENT INFORMATION:
NAME: SPRUIII, W. MUTTRY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919 420 2202
TELEPHONE: 919 420 2202
TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
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Matches
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INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
LENGTH: 191 amino acids
TYPE: amino acid
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                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/280,826
FILING DATE: 25-Oct-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 919 420 2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 02-Aug-2001
CLASSIFICATION: <Unknown
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/921,398
                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AL INFORMATION:
APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 CAPLKPAKSA-RSVRAQRHTDMPKTQK 86
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h 76.5%;
Similarity 98.9%;
86; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Raleigh
STATE: NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 27622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: US
191 amino acids
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TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 41:
US-10-280-826-41
Search completed: March
Job time : 151.09 secs
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                                                                                                                                                                                                         Matches
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Best Local S
                                                                    146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
                                                                                                                                                                                                           86;
                                                                                                 61 CAPLKPAKSA-RSVRAQRHTDMPKTQK 86
                                                                                                                                      86 GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 145
                                                                                                                                                                        1 GPETLCGAELVDALOFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                         Similarity 98.9
86; Conservative
                3, 2004, 08:14:23
                                                                                                                                                                                                       76.5%; Score 457.5; DB 1 98.9%; Pred. No. 7.8e-45; tive 0; Mismatches 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein - protein search, using sw model
                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                      March 3, 2004, 07:50:54; Search time 33.1325 Seconds (without alignments) 1047.520 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                        1017041 seqs, 315518202 residues
                                                                                                                                                                                                                                                                                                                                                                BLOSUM62
Gapop 10.0 , Gapext 0.5
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598
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
sp_organelle:*
sp_phage:*
sp_plant:*
sp_virus:*
sp_virus:*
sp_vertebrate:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

16	15	14	13	12	11	10	9	00	7	თ	ហ	4	ω	2	_	Result No.
399	399.5	401	401	401	401	403.5	422	447	450	458	463	468	468	486	590	Score
66.7	66.8	67.1	67.1	67.1	67.1	67.5	70.6	74.7	75.3	76.6	77.4	78.3	78.3	81.3	98.7	Query Match Length
116	178	188	188	155	145	161	153	153	127	139	133	137	130	165	139	
13	13	13	13	13	13	13	13	11	1	σ	ov	4.	4.	11	4.	DB E
Q91161	Q9IBIO	Q91965	P81268	Q91162	Q91475	Q91230	093380	Q8C4U6	P97899	P79167	Q9N1C1	Q14620	Q9NP10	Q8CAR0	Q13429	ij
Q91161 oncorhynchu	Q9ibi0 cyprinus ca	Q91965 oncorhynchu	P81268 oncorhynchu	Q91162 oncorhynchu	Q91475 salmo salar	Q91230 oncorhynchu	O93380 meleagris g	Q8c4u6 mus musculu	P97899 rattus sp.	P79167 equus cabal	Q9n1c1 bos taurus	Q14620 homo sapien	Q9np10 homo sapien	Q8car0 mus musculu	Q13429 homo sapien	Description

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
278	298.5	302	333.5	351	355	355.5	370	370	370	370	370	370	376	. 376	376	376.5	377	377	377	378	~1	379.5	381	382	382.5	90	392	399
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62	126	57	69	184	66	185	186	108	108	108	108	104	182	182	182	159	186	186	185	161	161	161	161	186	117	161	117	149
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Q9iaa0	Q91442	Q28236 c	ж	042336	Q9n1s6 c	Q9Y157	Q9pax5	Q800m7	Q800m8	Q800m9	Q800n0	Q7t107	P79824	042289	073720	093607	Q7t1a7	093527	057436	Q9y182	Q800d5	Q98sr6	Q9pwk2	Q800y5	Q91914	Q90vv9	Q91476	Q91231
carassius	squalus aca	cervus elap	bubalus bub	myoxocepha				morone	morone chry	morone saxa	morone chry	dicentrarch	oreochromis	oreochromi	oreochromis	paralichthy	perca tlave	μ.	paralichthy	carassius a	megalobrama	megalobrama	carassius	siganus gut	ctenopharyn	brachydanio	salmo sala	oncorhynchu

### ALIGNMENTS

ãб	SQ	尿	DR	DR	DR	DR	DR	DR	DR.	당:	긆	8	2	RL	R.T	RT	RT	Ŗβ	뫉	RC	ВÞ	RN	õ	8	ဂ္ဂ	တ္ထ	g	DE	ΡŢ	ΡŢ	DT	AC	IJ	Q13429	RESULT
Query Match 98.7%; Score 590; DB 4; Length 139; Best Local Similarity 99.1%; Pred. No. 7e-63;	SEQUENCE 139 AA; 15611 MW; A62271872CA29DE4 CRC64;	PROSITE; PS00262; INSULIN; 1.		7	Pfam; PF00049; Insulin; 1.	erPro; IPR004825; Ins/IGF/relax.	GO:0007582;	GO:0005179; F:hormone activit	0:0005576	P01343;	L: U40870: AAA96152.1:	SIMILARITY: BELONGS TO THE INSULIN/	- I - SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).	Endocrinology 136:1939-1944(1995).	mitogenic IBE1 peptide.";	transcript with hepatic tissue expression that diverts away from the	n insulin-like growth factor-I	Chew S.L., Lavender P., Clark A.J., Ross R.J.;	MEDLINE=95237119; PubMed=7720641;	TISSUE=Liver;	SEQUENCE FROM N.A.	[1]	NCBI TaxID=9606;	Primates; Catarrhini	etazoa; Chordata;	Homo sapiens (Human).		e growth fact	(TrEMBLrel. 24, Last annotation	1. 01,	(TrEMBLrel. 01, Created)	Q13429;	Q13429 PRELIMINARY; PRT; 139 AA.	ວິງ	ILT 1

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Nature 420:563-573(2002).

EMBL; AKO38119; BAC29934 l; ---
MGD; MGI:2444166; C730016P09Rik.

GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005192; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEI
InterPro; IPRO04825; Insulin; 1.

PRINTS; PRO047; INSULINB.

PRINTS; PRO047; INSULINB.

SMART; SM00078; IIGF; 1.

PROSITE; PS00625; INSULIN; 1.

SCOURNCE 165 AA; 18473 MW; 2CE0D3DA981C931
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Q8CAR0;
01-MAR-2003
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Mammalia; Eutheria; Rodentia;
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C730016P09RIK.
                                                                    Homo sapiens (Human)
Eukaryota; Metazoa;
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STRAIN=C57BL/6J; TISSUE=Thymus;
MEDLINE=22354683; PubMed=12466851;
The FANTOM Consortium,
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    SEQUENCE
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                                         NCBI_TaxID=9606;
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MEDLINE=88065102; PubMed=3683205;
Rall L.B., Scott J., Bell G.I.;
"Human insulin-like growth factor I and II messenger RNA:
complementary DNA and analysis of expression.";
Meth. Enzymol. 146:239-248(1987).
-i- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-i- SUMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                                                                         Pfam; PF00049; Insulin; 1. PRINTS; PR00277; INSULINB. SMART; SM00078; IlGF; 1.
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30; GO:0005179; F:hormone activity; IEA.
30; GO:0007882; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                            Similarity
                                                                                          GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
               CAPLKPAKSARSVRAQRHTDMPKTQK
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Pred. No. 2.9e-48;
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970FBAAECFA0352D
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EMBL; M37484; AAA52789.1; -.
pIR; A36552; A36552.
HSSP; P01343; ZGF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; II
GO; GO:0007582; P:physiological proces
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1. 01-NOV-1996 01-NOV-1996 01-JUN-2003 SEQUENCE FROM N.A.

MEDLINE=91187000; PubMed=2082190;
Tobin G., Yee D., Brunner N., Rotwein
"A novel human insulin-like growth fac
in normal and tumor cells.";

Mol. Endocrinol. 4:1914-1920(1990). PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; Homo sapiens (Human). Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Mol. Endocrinol. 4:1914-192
-i- SUBCELLULAR LOCATION: S
-i- SIMILARITY: BELONGS TO NCBI\_TaxID=9606; Insulin-like 6 (TrEMBLrel. 01, C: 6 (TrEMBLrel. 01, L: 3 (TrEMBLrel. 24, L: ke growth factor I ] 33 137 PRELIMINARY; Ä 32 137 15177 <sub>1</sub> SECRETED (BY SIMILARITY). ¥ Last sequence update)
Last annotation update) Created) POTENTIAL.
INSULIN-LIKE GROWTH FACTOR
BFCC0D11E32AB75D CRC64; precursor PRT; processes; IEA ein P.; factor IEA. 137 B н IEA. messenger FAMILY RNA 3,

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RESULT 5
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GO; GO:0005179; F:hormone activity; II
GO; GO:0007582; P:physiological proces
InterPro; IPR004825; Ins/IGF/relax.
Pfan; PF00049; INSULINB.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
P79167
P79167;
P79167;
O1-MAX-1997 ('
O1-OCT-2000 ('
O1-JUN-2003 ('
Insulin-like (Fragments).
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Q9N1C1;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lien S., Karlsen A., Klemetsdal G., Vage D.I., Olsaker I., Klungland H., Aasland M., Heringstad B., Ruane J., Gomez-Raya "A primary screen of the bovine genome for quantitative trait affecting twinning rate.";
                                                                                                                                                                                                                                                                                            PROSITE; PS00262; INSULIN; 1.
NON TER 1 1 1
SEQUENCE 133 AA; 14674 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                    affecting twinning rate.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
-:- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-:- SIMILARITY: BELLONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; AF210387; AAF72409.1; -.
EMBL; AF210385; AAF72409.1; JOINED.
EMBL; AF210386; AAF72409.1; JOINED.
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Mammalia; Eutheria; Ce
Bovidae; Bovinae; Bos
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Bovine)
                                                                                                                                                                                                                                                                                               133 AA; 14674 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TIENMELIE1. 15, Created)
(TIENMELIE1. 15, Last sequence update)
(TIENMELIE1. 24, Last annotation update)
growth factor I (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
          (TRIMBLrel 03, Created)
(TRIMBLrel 15, Last sequence update)
(TRIMBLrel 24, Last sequence update)
growth factor IB precursor (IGF-IB) (Somatomedin
                                                                             PRELIMINARY;
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                         77.4%;
98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                           Score 463; DB
Pred. No. 1.2e
0; Mismatches
                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 468;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                             PRT;
                                                                                                                                                                                                                                                                                               A6991DBCB75C103B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                            IEA.
IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      processes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86
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                                                                                                                                                                                                                                                                                                                                                                                        IEA.
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م
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                                                                                                                                                                                                                                                                    Length 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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RESULT P97899

DAC

P97899; P97899; 01-MAY-1997

(TrEMBLrel. 03,

Created)

PRELIMINARY;

127 AA

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Best Local
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DISULFID
NON TER
SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
MCBI __TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
DOMAIN
DOMAIN
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PROPEP
CHAIN
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NIXON A.J., Toland B.D., Sandell L.J.,

Submitted (JAN-1997) to the EMBL/GenBank/DDBJ

-i- FUNCTION: THE INSULIN-LIKE GROWTH FACTORS,

ARE STRUCTURALLY AND FUNCTIONALLY RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00277; INSULINB. SMART; SM00078; ILGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Otte K., Rozell B., Gessbo A., Engstrom W.; "Cloning and sequencing of an equine insulin-like and its expression in fetal and adult tissues."; Gen. Comp. Endocrinol. 102:11-15(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=97013467; Protte K., Rozell B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 1-122 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30; GO:0005179; F:hormone activity; IEA.
30; GO:0007582; P:physiological processe
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GO:0005576; C:extracellular; IEA.
GO:0008083; F:growth factor activity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: SECRETED ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=IGF-IA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MUCH HIGHER GROWTH-PROMOTING ACTIVITY.
109
                                  61
                                                                           49
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                                                                                                                                                            87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family;
                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00262; INSULIN; 1.
                                                                                                        GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                  CAPIKPAKSARSVRAQRHIDMPKTQKYQPPSINKNIKSQRRK 102
                                                                           GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDEC
                                                                                                                                                                                                                                   95
139
139
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78
90
111
119
122
122
66
                                                                                                                                                            Conservative
                                                                                                                                                                                                                                          AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Growth ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=8860303;
., Gessbo A., Engstrom W.;
                                                                                                                                                                                                                                                                                 123
96
109
100
                                                                                                                                                                                                                                            15612
                                                                                                                                                                         76.6%;
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SS TO THE INSULIN/IGF/RELAXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor;
                                                                                                                                                                                                                                            WW.
                                                                                                                                                         <u>'</u>.
                                                                                                                                                       Score 458; DB 6;
Pred. No. 5.1e-47;
1; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.
INSULIN-LIKE GROWTH
                                                                                                                                                                                                                                                                                   84
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84
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                                                                                                                                                                                                                                                                               Y SIMILARITY.
Y SIMILARITY.
SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       processes;
YOPPSTNKKTKLORRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J databases.
S, ISOLATED F
D TO INSULIN
                                                                                                                                                            <u>د</u>
                                                                                                                                                                                                Length 139;
                                                                                                                                                                                                                                            CRC64;
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BUT
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HAVE A
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RESULT

OBJECT

OBJECT
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Best Local S
Matches 82
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GC; GO:0005576; C:extracellular; IEA.
GC; GO:0005576; C:extracellular; IEA.
GC; GO:0005179; F:bormone activity; IE
GO; GO:0005179; F:bormone activity; IE
GO; GO:0007582; P:physiological proces
InterPro; IPR004825; Ins/GF/relax.
PEAM; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PARTIAL SEQuence Public Shimatsu A., Rotwein P.; Shimatsu A., Rotwein P.; Shimatsu A., Rotwein of the insulin-like "Mosaic evolution of the insulin-like "hem. 262:7894-7900(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8C4U6;
Q8C4U6;
01-MAR-2003
01-MAR-2003
01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-1997 ('01-JUN-2003 ('Insulin-like (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE=91103966; PubMed=1368571;
Kato H., Okoshi A., Miura Y., Noguchi
Kato H., Okoshi A., Miura Y., Noguchi
"A new cDNA clone relating to larger m
like growth factor-I mENA.";
Agric. Biol. Chem. 54:159-1601(1990).
-j- SUBCELTULAR LOCATION: SECRETED (BY
-j- SUBCELTULAR LOCATION: SECRETED (BY
-j- SUBJELTARTY: BELONGS TO THE INSULIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
the RIEN Genome Exploration Research "Analysis of the mouse transcriptome b 60,770 full-length CDNAs.";
Nature 420:563-573(2002).
EMBL; AK081019; BAC38117.1; -.
MGD; MGI:2444166; C730016P09Rik.
GO; GO:0005576; C:extracellular; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10118;
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Cerebellum;
MEDLINE=22594683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown EST.
C730016P09RIK.
                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
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127 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TrEMBLrel.) (TrEMBLrel.) (TrEMBLrel.)
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(TrEMBLrel. 24, Last annotation update)
e growth factor I.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Mouse)
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                         Chordata;
Rodentia;
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95.3%;
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23,
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Pred. No. 4.2e-46
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104E126BCFCA5CB7
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.. IEA.
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molecular
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based o
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/IGF/RELAXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IEA.
                                                                                                                                                               on functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
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; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of
f
                                                                                                                                                                  Team;
annotation
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Best Local S
Matches 81
                                                                                                                                                                            Query Match
Best Local S
Matches 77
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01-NOV-1998
01-NOV-1998
01-JUN-2003
                                                                                                                                                                                                                                                                   Signal.
SIGNAL
CHAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007502; P:physiological processes;
InterPro; IRR00485; InsJIGF/relax.
Pfam; PP00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
SEQUENCE 153 AA; 17093 MW; 967596AEACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., SEQUENCE FROM N.A., STRAIN-BIG 6 ML Tom; TISSUE-Liver; STRAIN-BIG 6 ML Tom; TISSUE-Liver; Czerwinski S.M., Ashwell C.M., McMurtry J.P.; Czerwinski S.M., Ashwell C.M., McMurtry J.P.; "Cloning of turkey insulin-like growth factor-I (IGF-I)."; "Cloning of turkey insulin-like growth factor-I (IGF-I)."; Submitted (UUN-1998) to the EMBL/GenBank/DDBJ databases.

-!- SUBCELJULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Me
Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; I
GO; GO:0007582; P:physiological proce
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9103;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    093380
                                                                                                                                                                                                                                                                                                                                                           PROSITE;
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109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AF074980; AAC26006.1;
                                                                                      49
                                           61
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                                                                                                                                 Н
                                                                                                                                                                            . Similarity 77; Conserv
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31; Conservative
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                                                                                                                   GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                           PS00262;
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                                   CAPLKPAKSARSVRAQRHTDMPKTQK
CAPIKPPKSARSVRAQRHTDMPKAQK
                                                                                      GPETLCGAEL
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a; Aves; N
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3 (TrEMBLrel. 08, L:

3 (TrEMBLrel. 24, L:

ce growth factor-I)
                                                                                                                                                                                                                                                                     49
153 AA;
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                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 growth
                                                                                                                                                                                                                                                                                                                                                           INSULIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        o (Common turkey); Chordata; Crani
Neognathae; Gall
                                                                                                                                                                                                                                                                     118
17295
                                                                                      VDALQFVCGDRGFYFSKPTGYGSSSRRLHHKGIVDECCFQSCDLRRLEMY
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89.5%;
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94.2%;
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       cal processes;
/relax.
                                                                                                                                                                            Score 422; DB 13;
Pred. No. 1.2e-42;
3; Mismatches 6;
                                                                                                                                                                                                                                                                     POTENTIAL:
INSULIN-LIKE GROWTI
; 5AF1E5B8D13C70B5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
; Galliformes; Phasianidae; Meleagri
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                                                                                                                                                                                                                            153;
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RESULT Q91230

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RESULT
Q91475
ID 1475
AC Q5
AC Q5
DT 0:
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C E I
OC F OC
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Best Local S
Matches 77
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Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
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Q91230;
Q91230;
                                                                                                                                                                                                   01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-UNV-2093 (TrEMBLrel. 24, Last annotation update)
01-UNV-2093 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I precursor (Fragment).
Salmo salar (Atlantic salmon).
Edwaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Actinopterygii; Salmoniformes; Salmonidae; Salmo.
                                                                                                                                                                                                                                                                                                                                                                                                                    Q91475
Q91475;
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GO; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (OCT-1994) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wallis A.E., Devin R.H.;
Wallis A.E., Devin R.H.;
"Duplicate insulin-like growth factor-I genes
alternative splicing pathways.";
Mol. Endocrinol. 7:409-422(1993).
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NCBI_TaxID=74940;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Actinopterygii, Nepopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Onco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1996
01-JUN-2003
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Devlin R.H.
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MEDIINE=93024477; PubMed=1406698; Duguay S.J., Park L.K., Samadpour M., Dickhof Duguay S.J., Park Lett., Samadpour M., Dickhof "Nucleotide sequence and tissue distribution growth factor I prohormones in salmon.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P01343; 2GF1.
GG, GO:0005576; C:extracellular; IEA.
GG, GG:0005179; F:hormone activity; IEA.
GG, GG:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
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                                                                                                        SEQUENCE FROM N.A.
TISSUE=Liver;
                                                                                                                                                                             VCBI_TaxID=8030;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNT--KSQRRKGST 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPETLCGAELVDTLQFVCGERGFYFSKPTGYGPSSRRSHNRGIVDECCFQSCELRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAPVKSGKAARSVRAQRHTDMPRTPK-KPLSGNSHTSCKEVHQKNSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67.5%; ilarity 72.0%; Conservative 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 403.5;
Pred. No. 2.1e
12; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A5A85D121377BF67 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                       Dickhoff W.W.;
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                              three insulin-like
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RESULT 12
Q91162
ID Q9116
AC Q9116
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Best Local S
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NON TER
SEQUENCE
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PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN
EMBL; M81904; AAA18211.1; -.
HSSP; P01349; 2GP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1996 (TIEMBLIEL 01, Created)
01-NOV-1996 (TIEMBLIEL 01, Last sequence update)
01-UNV-1996 (TIEMBLIEL 24, Last annotation update)
01-UNI-2003 (TIEMBLIEL 24, Last annotation update)
Insulin-like growth factor I precursor (Fragment).
Oncorhynchus kisutch (Coho salmon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleoste
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
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Q91162;
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                                                           EMBL; M81913; AAA49413.1; -.
PIR; C44012; C44012.
HSSP, P011343; 2GF1.
G0; G0:0005576; C:extracellular; IEA.
G0; G0:0005179; F:hormone activity; IEA.
G0; G0:0005179; F:hormone in the company of the com
                                                                                                                                                                                                                                                                                                MEDLINE=93024477; PubMed=1406698;
Duguay S.J, Park L.K., Samadpour M., Dickhoff
Unucleotide sequence and tissue distribution o
growth factor I prohormones in salmon.";
Mol. Endocrinol. 6:1202-1210(1992).
-i- SUBCELLULAR LOCATION: SECRETED (BY SIMILAR-
-i- SIMILARITY: BELONGS TO THE INSULIN/IGF/REI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cao Q.P. Duguay S.J. Plisetskaya E., Steiner D.F., "Nucleotide sequence and growth hormone regulated einsulin-like growth factor I mRNA."; mol. Endocrinol. 3:2005-2010(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=90190659;
Cao Q.P, Duguay S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=8019;
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30; GO:0005179; F:hormone activity; IEA.
30; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                      Pfam; PF00049; Insulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SSUE=Liver;
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M00078; IlGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAPLKPAKSARSVRAORHTDMPKTQKYQPPSTNKNTKSQRR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Insulin;
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>88
145
15885 :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=2628735;
J, Plisetskaya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67.1%;
72.3%;
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Pred. No. 3.8e
l1; Mismatches
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INSULIN-LIKE GROWTH FACTOR
                                                                                                                                                                                                                                                                                                           ETED (BY SIMILARITY).
INSULIN/IGF/RELAXIN
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SMART;

SM00078;

IlGF; 1. INSULIN;

PS00262;

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Best Local S
Matches 73
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01-AUG-1998
01-AUG-1998
01-JUN-2003
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Signal,
NON TER
SIGNAL
                                                     Gebenjuk V.A., Skorokhod A.S., Anoprienko O.V., Koval A.P. Submitted (MAY-1998) to the EMEL/GenBank/DDBJ databases.

1. SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

1. SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; APO63216; AACL8833 1; -.

EMBL; APO63216; AACL8833 1; -.

HSSP; P01343; 2GF1.

HSSP; P01343; 2GF1.

HSSP; P01343; 2GF1.

GO; GO:00055179; F.Hormone activity; IEA.

GO; GO:0005179; F.Hormone activity; IEA.

GO; GO:0007582; P:physiological processes; IEA.

INTERPOACA. TROUGHS 118/IGF/relax.
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [2]
SEQUENCE FROM N.A.
MEDLINE=94296559; PubMed=8024699;
Kavsan V.M., Grebenjuk V.A., Kova
Leroith D.;
                                                                                                                                                                                                                                                                                                              MEDLINE=95032736;
KOVal A., Kulik V., Duguay S., Plisetskaya E.,
Roberts C.T.Jr., Leroith D., Kavsan V.;
"Characterization of a salmon insulin-like grov
DNA Cell Biol. 13:1057-1062(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. Grebenjuk V.A., Cl
Kavsan V.M., Koval A.P., Grebenjuk V.A., Cl
Roberts C.T. Jr., Leroith D.;
Roberts C.T. Jr. beroith D.;
"Structure of the Chum Salmon Insulin-Like
DNA Cell Biol. 11:729-737(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oncorhynchus keta (Chum salmon).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Actinopterygii, Neopterygii; Teleostei; Euteleostei;

Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
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Roberts C.T.Jr., Leroith
"Isolation of a second no
                                                                                                                                                                                                                                                SEQUENCE FROM N. Gebenjuk V.A., S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=8018;
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                      PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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    PF00049; Insulin; 1.
S; PR00277; INSULINB.
; SM00078; IIGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Biol.
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ce growth factor I
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13:555-559(1994)
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INSULIN-LIKE GROWTH
R -> X (IN REF. 1).
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01-NOV-1996
01-OCT-2003
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                                                                                                                                                        GO; GO:00055/6; C:extracellular; IEA.
GO; GO:00051/9; F:hormone activity; IEA.
GO; GO:00051/9; F:hormone activity; IEA.
GO; GO:0007582; F:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; ILGF; 1.
SMART; SM00078; ILGF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wallis A.E., Devlin R.H.;
"Duplicate insulin-like growth factor-I alternative splicing pathways";
Mol. Endocrinol. 7:409-422(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oncorhynchus tschawytscha (Chinook salmon) (King salmon).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Melosotai; Buteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
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PIR; B54270; B54270.
HSSP; P01343; 2GF1.
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-!- SIMILARITY: BELONGS TO T
EMBL; U15960; AAA67266.1; -.
EMBL; U14536; AAA67263.1; -.
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Devlin R.H.;
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                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ICBI_TaxID=74940;
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                                                                           Similarity
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GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                             188 AA;
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(TrEMBLrel. 01, Last sequence up
(TrEMBLrel. 25, Last annotation
e growth factor-I.
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72.3%; Pre
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20782 MW;
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SECRETED (BY SIMILARITY).
O THE INSULIN/IGF/RELAXIN FAMILY
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Pred. No. 5e-4(
ll; Mismatches
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No.
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RESULT 15
Q9IBIO
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Search completed: March 3, Job time: 36.1325 secs
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Best Local S
Matches 74
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Q9IBIO;
Q1-BIO;
Q1-CCT-2000 (TrEMBLrel. 15, Created)
O1-CCT-2000 (TrEMBLrel. 15, Last sequence update)
O1-CCT-2003 (TrEMBLrel. 25, Last annotation update)
Insulin-like growth factor I subtype Ea2.
IGF-IEA2 OR IGF-I.
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GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:bormone activity; IEA.
GO; GO:0005179; F:bormone juical processes; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PR00049; Insulin; I.F
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF/INSULINB.
SMART; SM00078; IIGF/INSULINB.
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SEQUENCE FROM N.A., Cheng C.H.K.;

Vong Q.P., Chan K.M., Cheng C.H.K.;

indicational characterization of the 5'-flanking region.";

Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SIMILARITY: BELIONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; S82374; AAB37702.2; -.

EMBL; AF465830; AAP78926.1; -.
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Eukaryota; Meteazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
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Pfam; PF00049; Insulin; 1.
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SMART; SM00078; IIGF; 1.
Insulin family; Growth factor; Plasma.
SIGNAL 1 32 POTENTIA.
SIGNAL 1 32 POTENTIA.
SIGNAL 3 102 E PEPTID.
PROPER 103 143 E PEPTID.
                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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POTENTIAL.
INSULIN-LIKE GROWTH FACTOR I.
E PEPTIDE.
B. Plasma; Signal; Alternative

splicing

219.5 36.7 139 1 IGF MYXGL P22618
159.5 26.7 50 1 INS MYOSC P07453
158.5 26.5 51 1 INS_GADCA P01336
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; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus. NCBI_TaxID=9988;
SEQUENCE FROM N.A. (ISOFORM IGF-IA).
STRAIN=ZIKA;
Flekna G., Brem G., Mueller M.; Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
SEQUENCE FROM N.A. (ISCHORM IGHTIB):
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MBL/GenBank/DDBJ databases.
-!- FUNCTION: The insulin-like growth factors, isolated from plasma,
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!- ALTERNATIVE PRODUCTS:
EVent=Alternative spilcing; Named isoforms=z; Name=IGF-IB;
IsoId=Q95222-1; Sequence=Displayed;
Name=IGF-IA; IsoId=095222-2: Sequence=VSP 002705:
IMILARITY: Belongs to the insulin family.
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MEDLINE=84295593; PubMed=6382022;

DINITION OF A PAYFICK J.S., Ullrice Translin-like growth factor II precursor relation to insulin gene family.";

Nature 310:777-781(1984).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

MEDLINE=86.68194; PubMed=2937782;

Rotwein P., Pollock K.M., Didder D.K., Kri

"Organization and sequence of the human in
gene. Alternative RNA processing produces
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MEDLINE=78130171; PubMed=632300;
Rinderknecht E., Humbel R.E.;
"The amino acid sequence of human insulin-like
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Homo sapiens (Human)
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Catarrhini;
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nan insulin-like growth f
Auces two insulin-like gr
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i; Hominidae;
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Cargill M. Shaw N., L. Friedland
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or send a
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                                 EMBL;
EMBL;
                                                                                  the European Bioinformatics Institute. There are no rest
by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
entities requires a license agreement (See http://www.isb-
                                                                                                                                                                                                                                                                       Nat.
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MEDLINE=993L8093; PubMed=10391209;

Cargill M., Altebhuler D., Izeland J., Sklar P.,

Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., N

Friedland L., Rolfe A., Warrington J., Lipshutz
                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=89207850; PubMed=3242681;
Raschdorf F., Dahinden R., Maerki W., Richter W.J.,
Raschdorf F., Dahinden R., Maerki W., Richter W.J.,
"Location of disulphide bonds in human insulin-like
(IGFs) synthesized by recombinant DNA technology.";
Biomed. Environ. Mass Spectrom. 16:3-8(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sato A., Nishimura S., Ohkubo T.,
Yasuda T., Kobayashi Y.;
"1H-NNR assignment and secondary
growth factor-I (IGP-I) in soluti
J. Biochem. 111:529-536(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=92316903; PubMed=1319992; MEDLINE=92316903; PubMed=1319992;
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                                                                                                                               between
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                                                                                                                                                                                                                                                                                                                                                                     human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biol.
                                                                                                                                                                                          FUNCTION: The insulin-like growth factors, are structurally and functionally related temporal much higher growth promoting activity.

SUBCELLULAR LOCATION: Secreted.

ALTERNATIVE PRODUCTS:

Event=Alternative splicing; Named isoforms-Name=IGF-IB;

IsoId=P05019-1; Sequence=Displayed;
                                                                                                                                                              IsoId=P01343-1;
SIMILARITY: Belon
                                                                                                                                                                                   Name=IGF-IA;
                                                                                                                               SWISS-PROT entry is copyright. It is produced een the Swiss Institute of Bioinformatics and
                                                                                                                                                                                                                                                                                                                                                         man genes.";
Genet. 22:231-238(1999)
 M14155;
M12659;
M14153;
M14154;
M11568;
X03563;
                                                                                                                                                                                                                                                                                          E.S.;
                                                                           an
                                                                                                                                                                                                                                                                                                  Lane C.R.,
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42:2592-
                                                                          equires a license agreement (
email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                              23:373-373(1999)
                                                                                                                                                                                                                                                                                                                         Altshuler
; AAA52537.1;
AAA52537.1;
AAA52537.1;
AAA52537.1;
AAA52537.1;
AAA52539.1;
CAA27250.1;
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A.,
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im E.P., Kalyanaraman N., N
., Warrington J., Lipshutz
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solution.";
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tor binding,
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z R., Daley
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sh J.,
Daley
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ALT\_SEC

Mus musculus (Mouse)

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RESULT 3
IGFB MOUSE
ID 16FB M
AC P05018
DT 13-AUG
DT 13-AUG
DT 15-AWAR
DE Insuli
GN IGF1 0
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EMBL; X03421; CAA27153.1; -.
EMBL; X03422; CAA27154.1; -.
OR PIR; A01611; IGHU1B.
PDB; 1GF1; 15-DCT-94.
PDB; 2GF1; 15-APR-0
PDB; 3GF1; 15-APR-0
PDB; 3GF1; 15-APR-0
PBB; 1BQT; 1
PBW; HT
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Best Local S
Matches 103
"IGFB MOUSE
P05018;
13-AUG-1987 (
13-AUG-1987 (
15-MAR-2004 (
Insulin-like
IGF1 OR IGF-1
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MIM; 147440;
MIM; 26585;
GO; GO:000518
GO; GO:000692
GO; GO:000751
GO; GO:000751
GO; GO:000751
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HELIX
SEQUENCE
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Pfam; P
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                                                                                                                                                                                                                                                                                                                                          SMART;
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                                                                                                                                                                                                                                   VARIANI
                                                                                                                                                                                                                                                                                                                            insulin
                                                                                                                                                                                                                                                                                                                                                                   GO:0006260; P:DNA replication; TAS.
GO:0009441; P:glycolate metabolism; TAS.
GO:0007517; P:muscle development; TAS.
GO:0008284; P:positive regulation of cell proliferation;
GO:0007265; P:RAS protein signal transduction; TAS.
GO:0007165; P:signal transduction; TAS.
GO:0007165; P:skeletal development; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                    GO:0005159; F:insulin-like growth factor GO:0005180; F:peptide hormone; TAS. GO:0006928; F:cell motility; TAS.
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                                                                                                                                                                                                                                                                                                                                                       Pro; IPR004825; In
PF00049; Insulin;
                                                                                                                                  al Similarity
103; Conserv
                                                                                    61 CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKG
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SM00078; IlGF; 1.
                                                                                                                                                                                                                                                                                                                           family; Growth
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                                                                                                                GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                            CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRKG
 (Rel. 05, Createu,
(Rel. 05, Last sequence update)
(Rel. 43, Last annotation update)
growth factor IB precursor (IGF-
                                                                                                                                   Conservative
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                                          STANDARD;
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rowth factor;
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77
89
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0; Mismatches
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B.
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/FTId=VAR_013945.
                                                                                                                                                                                                                                                                                                              POTENTIAL.
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                                          PRT;
                                                                                                                                                             E88A8CFBD1CD1873 CRC64;
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                                          133
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        (IGF-IB)
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        (Somatomedin).
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RX MEDLINE-2238257; PubMed=12477932;
RX Strausberg R.L., Feingold E.A., Grouse I.H., Derge J.G.,
RA Strausberg R.L., Feingold E.A., Grouse I.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan R., Forminci P., Prange C.,
RA Hopkins R.F., Jordan N.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., McGwan P.J., McKernan K.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Schmerch A., Schein J.E., Jones S.J.M., Marra M.A.,
"Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences.";

PYCC. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
PRINTS; PRO0277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1
Insulin family; Growth facto
SIGNAL 1 22
CHAIN 1 23 92
DOMAIN 23 51
DOMAIN 23 63
DOMAIN 64 84
                                                                                                                                                                                                                                                                                     EMBL; X04482; CAA28170.1; -.
EMBL; BC012409; AAH12409.1; -.
EMBL; BC012409; AAH12409.1; -.
HSSP; P01343; IGF1.
MGD; MGI:96432; Igf1.
GO; GO:0010001; P:glial cell differentiation;
GO; GO:0010001; P:glial cell differentiation;
GO; GO:0007399; P:neurogenesis; IMP.
InterPro; IPR004225; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restrues by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
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"Sequences of liver cDNAs encoding two different mouse insulin-like growth factor I precursors.";
"Sucleic Acids Res. 14:7873-7882(1992)
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE=Liver;
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  are structurally and functionally relating arctivity.

SUBCELLULAR LOCATION: Secreted.
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SIMILARITY: Belongs to the insulin family.
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence=Displayed;
                                                                                                                                                             factor; Plasma; Alternative splicing;
   INSULIN-LIKE GROWTH FACTOR IB.
B.
C.
A.
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Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     related t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                There are no restrictions on its long as its content is in no way moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
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Best Local S
Matches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGFD RAT STANDARD;
p08024;
p08024;
01-AUG-1988 (Rel. 08, Create:
01-FEB-1991 (Rel. 17, Last s:
10-OCT-2003 (Rel. 42, Last a:
Insulin-like growth factor II
IGF1 OR IGF-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROPEP
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J. Biol. Ch
-!- FUNCTIO
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Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;
"Structure of the rat insulin-like growth factor II transcriptional unit; heterogeneous transcripts are generated from two promoters by unit; heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic use of multiple polyadenylation sites and differential ribonucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shimatsu A., Rotwein P., "Shimatsu A., Rotwein P., "Sequence of two rat insulin-like growth within the 5' untranslated region."; Nucleic Acids Res. 15:7196-7196(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                           Tamura K., Kobayashi M., Ishii Y., Tamu
Nakamura S., Niwa M., Zapf J.;
"Primary structure of rat insulin-like
biological activities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shimatsu A., Rotwein P.; "Mosaic evolution of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=87222423; PubMed=3034909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=88015572;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biol.
                                         Biol. Chem. 264:5616-5621(1989).
FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms
                                                                                                                                                                                                                                                                                                                                                                    splicing.";
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      IsoId=P08024-1;
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Rodentia;
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Pred. No. 5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              precursor
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insulin-like grow
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or (IGF-IB)
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to insulin
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RESULT 5
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                                                                                                                                                            P17647;
01-AUG-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
SEQUENCE FROM N.A.
TISSUE=Pancreas;
MEDLINE=90332447; PubMed=2377480;
Bell G.I., Stempien M.M., Fong N.M., Sci
"Sequence of a CDNA encoding guinea pig
Nucleic Acids Res. 18:4275-4275(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
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-!- SIMILARITY: Belongs to the insulin family.
                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10141;
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M15647, AAA41214.1;

M15648, AAA41214.1;

M15648, AAA41214.1;

M15649, AAA41214.1;

X06107; CAA29480.1; AM15480; AAA41385.1; A
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TS; PR00277; INSULINB.
T; SM00078; IlGF; 1.
ITE; PS00262; INSULIN; 1
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                                                                                                                                                                                                                                                                                                                                    Similarity
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181 AA;
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(Rel. 42, Last annotation update)
growth factor I precursor (IGF-I)
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Rodentia;
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Pred. No. 6
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                                                                                   Hystricognathi;
                                                                                              Craniata;
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                                                                                              Vertebrata;
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CRC64;
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P01343;
21-JUL-1986
13-AUG-1987
10-OCT-2003
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                                                                           MEDLINE=86168194; PubMed=2937782;
Rotwein P., Pollock K.M., Didier D.K., Kri
"Organization and sequence of the human in
gene. Alternative RNA processing produces
factor I precursor peptides.";
J. Biol. Chem. 261:4828-4832(1986).
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MEDLINE=84068210;
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Mammalia; Eutheria;
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Pfam; PF00049; Insulin; 1.
PRINTS; PR02277; INSULINB.
SMART; SM00078; IIGF; 1.
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PIR; S12719; I
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SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                 sapiens (Human)
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Catarrhini; Hominidae;
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MEDLINE=91242464; PubMed=2036417;

Cooke R.M., Harvey T.S., Campbell I.D.;

Cooke R.M., Harvey T.S., Campbell I.D.;

Rolution structure of human insulin-like growth fact magnetic resonance and restrained molecular dynamics Biochemistry 30:5484-5491(1991).
                 growth factors.
                                                                                       MEDLINE=92316903; PubMed=1319992;
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Blundell T.L., Bedarkar S., Humbel R.E.;
"Terriary structures, receptor binding, a
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Steenbergh P.H.,
Sussenbach J.S.;
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                                                 Sato A., Nishimura S., Ohkubo T., Yasuda T., Kobayashi Y.; "IH-NMR assignment and secondary
                                                                                                                                                                                                                                                                                                 "Tertiary structures, receptor insulinlike growth factors."; Fed. Proc. 42:2592-2597(1983).
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3D-STRUCTURE MODELING.
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J. Biol. Chem. 253:2769-2776(1978).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     relation to insulin gene Nature 310:777-781(1984).
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Ie Bouc Y., Dreyer D., Jaeger F.,
"Complete characterization of the
isolated from a newly constructed
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                                     factor-I
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111:529-536(1992).
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Koonen-Reemst A.M.C.
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Res. 12:275-277(1992)
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GO: GO:0005159; F:insulin-like growth
GO: GO:0005189; F:peptide hormone; TAX
GO: GO:0005180; F:peptide hormone; TAX
GO: GO:0006288; P:Cell motility; TAS.
GO: GO:0006260; P:DNA replication; TAX
GO: GO:0009441; P:glycolate metabolist
GO: GO:0007517; P:muscle development;
GO: GO:0007517; P:muscle development;
GO: GO:0007165; P:RAS grotein signal
GO: GO:0007165; P:RAS grotein signal
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InterPro; IPRO04825; InsIGF/relax.
Pfam; PF00049; Insulin; 1.
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-!- FUNCTION: The insulin-like growth factors, isolated fare structurally and functionally related to insulin
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                                                      PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor
Alternative splicing; Signal.
                                                                                                     PRINTS; PR00277; INSU
SMART; SM00078; IIGF;
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MIM; 265850; -.

MIM; 265850; -.

GO: GO:0005159; F:insulin-like growth factor receptor

GO; GO:0005180; F:peptide hormone; TAS.

GO: GO:000528; P:cell motility; TAS.

GO: GO:0006260; P:DNA replication; TAS.

GO: GO:0006260; P:DNA replication; TAS.

GO: GO:0007517; P:muscle development; TAS.

GO: GO:0007517; P:muscle development; TAS.

GO: GO:0007517; P:RAS protein signal transduction; TAS.

GO: GO:0007265; P:RAS protein signal transduction; TAS.

GO: GO:0007165; P:signal transduction; TAS.

GO: GO:0007165; P:signal transduction; TAS.

GO: GO:0007165; P:signal transduction; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR;
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Raschdorf F., Dahinden R., Maerki
"Location of disulphide bonds in
                                                                                                                                                                                                                                                                                                                                               jenew;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
Event_Alternative splicing; Named isof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M14156; AAA52538.1;
M12659; AAA5238.1;
M14154; AAA5238.1;
M14154; AAA5238.1;
X00173; CAA24998.1;
X03563; CAA27250.1;
M27544; AAA52787.1;
X03420; CAA27152.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IsoId=P01343-1; Sequence=Displayed;
Name=IGF-IB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=IGF-IA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=P05019-1; Sequence=External;
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an email to license@isb-sib.ch).
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15-0CT-94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-93.
                                                                                                                                                                                                                                                                                                                                                 :5464; IGF1
 49
49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAA40092
                                                                                                                    INSULINB.
21
48
118
77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 splicing; Named isoforms=2;
                                                                        factor; Plasma; 3D-structure;
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JOINED.
INSULIN-LIKE
B.
                                             POTENTIAL.
                GROWTH FACTOR
                                                                                                                                                                                                                                                                                                    receptor
                                                                                                                                                                                                             proliferation;
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                                                                                                                                                                                                                                                                                                    binding;
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but have a
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SEQUENCE OF 20-153 FKUM A....
SEQUENCE OF 20-153 FKUM A....
SEMMEDLINE=89096956; PubMed=3211153;
MEDLINE=89096956; PubMed=3211153;
Tavakkol A., Simmen F.A., Simmen R.C.M.;
"Porcine insulin-like growth factor-I (pIGF-I): complementary deoxyribonucleic acid cloning and uterine expression of messenger ribonucleic acid encoding evolutionarily conserved IGF-I peptides.";
"All Endocrinol. 2:674-681(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-AUG-1990
01-AUG-1990
10-OCT-2003
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PIG
IGF1 PIG
P16545;
                        expression of alternate transcription site
J. Mol. Endocrinol. 11:201-211(1993).
-!- FUNCTION: The insulin-like growth facts
are structurally and functionally related to the insulin-like growth facts
much higher growth-promoting activity.
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the insulin fam.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mueller M., Brem G.;
"Nucleotide sequence of porcine insulin-like g
"nucleotide sequence of porcine insulin-like g
untranslated region, exons 1 and 2 and mRNA.";
wircleic Acids Res. 18:364-364(1990).
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                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 1-21 FROM N.A.
STRAIN=White Landrace; TISSUE=Liver;
MEDLINE=94128209; PubMed=8297476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                          "The porcine insulin-like growth factor-I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=90221822;
Mueller M., Brem (
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(Rel. 15, Last sequence (Rel. 42, Last annotes of the control 
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annotation update)
I precursor (IGF-I)
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                           insulin family
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                                                                                                              related
                                                                                                                                                                                                  or-I gene:
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                                                                                                                                                                                                                                                                                  Dauncey M.J.,
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                                                                                                              isolated
to insulin
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Sus.
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Matches 89
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EMBL; X52388; CAA36617.1; -
EMBL; X52077; CAA36296.1; -
EMBL; M31175; AAA31043.1; A
EMBL; X17638; CAA35632.1; -
EMBL; X17638; S12825;
HSSP; P01343; IGF1.
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         + +
                                      MEDLINE=93366192; PubMed=8359700; Bernst Delafontaine P., Lou H., Harrison D.G., Bernst "Sequence of a cDNA encoding dog insulin-like Gene 130:305-306(1993).

-!- FUNCTION: The insulin-like growth factors, are structurally and functionally related
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                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                            NCBI_TaxID=9615;
                                                                                                                                                             Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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Pfam; PF00049; Insulin; 1.
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        much higher growth-g
SUBCELLULAR LOCATION
SIMILARITY: Belongs
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                  higher growth-promoting activity.
ELLULAR LOCATION: Secreted.
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ria; Carnivora;
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annotation update)
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Pred. No. 8.1e-43;
1; Mismatches
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                                                                                                                                      Craniata; Vertebrata;
; Fissipedia; Canidae;
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Canis.
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                                                                      H. :;
                                      plasma,
have a
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SMART; SM00078; IIGF; I.
SMART; SM00078; INSULIN;
                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restrues by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                            InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
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                 CAPLKPAKSARSVRAQRHTDMPKTQK
                                                  GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRAAPQTGIVDECCFRSCDLRRLEMY
CAPLKPAKSARSVRAQRHTDMPKAQK 105
                                      GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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01-APR-1988
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                              Schmidt A., Einspanier R., Amselgruber W. "Expression of insulin-like growth factor oviduct during the oestrous cycle.";
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SEQUENCE
                                                                                                 SEQUENCE OF 2-154 FROM N.A. MEDLINE=90175014; PubMed=2308858; Foteis T., Murphy C., Gannon F.; "Nucleotide sequence of the bovine (IGF-1) and its IGF-1A precursor."; Nucleic Acids Res. 18:676-676(1990)
                                                                                                                                                                                        Bos taurus (Bovine).
Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Ce
Maovidae; Bovinae; Bos.
                                                                SEQUENCE OF 50-119 FROM N.A. MEDLINE=95172127; PubMed=7867698;
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                                                                                                                                                                             NCBI_TaxID=9913;
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20, Last sequence update)
42, Last annotation update)
th factor I precursor (IGF-I)
                   oestrous cycle.";
nol. 102:364-369(1994)
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Cetartiodactyla; Ruminantia;
                                                     Amselgruber W.,
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minantia; Pecora;
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MEDLINE=86085881;

PubMed=3941093;

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          Insulin-like
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Pfam; PF00049; Insulin; 1.
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Francis G.L., Upton F.M., Ballard F.J.,
"Insulin-like growth factors 1 and 2 in
and biological activities compared with
                                                                                                                                                                                                                                                                                                                                                                              Insulin
                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; S12672; IGBO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Insulin-like growth factors I and II in serum. Purification, primary structures, cross-reactivities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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SM00078; IlGF; 1
E; PS00262; INSULIN; 1.
                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                             family;
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growth factor I precursor (IGF-I)
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                                                                                                                                                             CGAEL
                                                              STANDARD;
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Pred. No. 1.2e-42;
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e colostrum. Sequence
of a potent truncate
         (Somatomedin)
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co insulin but have a
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Matches 84
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EMBL; D26119; BAB77524.1; J
EMBL; D26116; BAB77524.1; J
EMBL; D26117; BAB77524.1; J
EMBL; D26118; BAB77524.1; J
EMBL; D26118; BAB77524.1; J
EMBL; D26118; BAB77524.1; J
FIR; D26418; D6483.1; JGF1.
HSSP; P01343; IGF1.
InterPro; IRR004825; Ins/IG
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DISULFID
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-- FUNCTION: The insulin-like growth factors, are structurally and functionally related; much higher growth-promoting activity.

-- ISUSCILIULAR LOCATION: Secreted.
-- TISSUE SPECIFICITY: Expressed in all tissue lung, liver, spleen, uterus, ovary, testis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Capra hircus (Goat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Caprinae; Capra.
                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content modified and this statement is not removed. Usage by arentities requires a license agreement (See http://www.isborsend an email to license@isb-eib.ch).
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STRAIN-Shiba; TISSUE-Liver
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Belongs to the insulin family.
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; SM00078; IIGF; 1.
TE; PS00262; INSULIN; 1
in family; Growth facto
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CAPLKPTKSARSVRAQRHTDMPKAQK 135
               CAPLKPAKSARSVRAQRHTDMPKTQK
                                                             GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                           GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and development-specific expression of
actor-I (IGF-I) mRNAs.";
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                                                                                                                                    154 AA;
                                                                                        Conservative
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97.7%;
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INSULIN-LIKE GROWTH FACTOR
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RESULT 11 IGF1\_SHEEP ID IGF1\_SHEEP

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Ovis aries (Sheep).
Eukaryota, Metazoa, C
Mammalia, Eutheria, C
Bovidae, Caprinae, Ov
  This
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Coopworth; TISSUE=Liver; MEDLINE=9325051; PubMed=8465157; MEDLINE=9325051; PubMed=8465157; Demmer J., Hill D.F., Petersen G.B.; "Characterization of two sheep insulin-like with different 5'-untranslated regions."; Biochim. Biophys. Acta 1173:79-80(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIINE-93221682; PubMed-8466647; Ohlsen S.M., Dean D.M., Wong E.A.; "Characterization of multiple transcription ovine insulin-like growth factor-I gene and three alternatively spliced transcripts."; DNA Cell Biol. 12:243-251(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDINE-91197361; PubMed-2015053;
Dickson M.C., Saunders J.C., Gilmour R.S.;
"The ovine insulin-like growth factor-I gene: characterization, expression and identification of a putative promoter.";
J. Mol. Endocrinol. 6:17-31(1991).
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01-FEB-1991
10-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=89323215;
Hey A.W., Browne
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WEDLINE=90126234; PubMed=2575490; Wong E.A., Ohlsen S.M., Godfredson J.A., Dean D.M., Wiwong E.A., Ohlsen s.M., Godfredson J.A., Dean D.M., Wiwong E.A., ohlsen s.M., Godfredson J.A., Dean D.M., Wiwong E.A., Dean D.M., Ecology and D.M., Dean D.M., William D.M., Dean D.M., Dean D.M., William D.M., Dean D.M., Dean D.M., William D.M., Dean D.M., Dean
                                                                                                                                                                                                                                                                                                                                                               Hey A.W., Browne C.A., & "Simultaneous isolation
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 50-79.
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                                      IsoId=P10763-3; Se
SIMILARITY: Belongs
                                                                                                                                                                                                         FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity. SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
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                                                                                                                                                                     Event=Alternative Name=B;
  SWISS-PROT
                                                                                                                                                                                                                                                                                                                                      sheep serum.";
                                                                                                      IsoId=P10763-2;
                                                                                                                                                 IsoId=P10763-1;
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C.A., Simpson R.J., Thorburn
lation of insulin-like growth
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  18
                                      Sequence=VSP_002706;
gs to the insulin family.
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copyright.
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It is produced through a collaboration
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                                                                                                                                                                                                                                                                                                                                                                                                  PIR; S22877; A33390.
HSSP; P01343; 1GF1.
InterPro; IPR004825; In
Pfam; PF00049; Insulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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X69475; CAA49231.1;

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154 AA;
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YEXISSLEPTQLFKCCFCDFLK -> MVTPT (; isoform C).
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sequence update) annotation updat

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MEDLINE=87222423; Furnamental A., Rotwein P.;
Timatsu A., Rotwein P.;
Timatsu A., Torion of the i
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Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T.,
"Structure of the rat insulin-like growth factor
unit: heterogeneous transcripts are generated from
unit: heterogeneous transc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=87246437; PubMed=3595538;
Murphy L.J., Bell G.I., Duckworth M.L., Fr
"Identification, characterization, and reg
complementary deoxyribonucleic acid which
factor-I.";
                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tamura K., Kobayashi M., Ishii Y., Tamu Nakamura S., Niwa M., Zapf U.; Primary structure of rat insulin-like biological activities.";
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MEDLLINE=91103966; PubMed=1368571;

Kato H., Okoshi A., Miura Y., Noguchi T.;

Kato H., Okoshi relating to larger molecular

"A new cDNA clone relating to larger molecular

insulin-like growth factor-I mRNA.";

Agric. Biol. Chem. 54:1599-1601(1990).
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Casella S.J., Smith E.P., van Wyk J.J.,
Hoyt E.C., Lund P.K.;
"Isolation of rat testis cDNAs encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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Mammalia; Eutheria;
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VA 6:325-330(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biol.
                                                                                                                                                                                                                         ISOId=P08024-1; Se
SIMILARITY: Belongs
                                                                                                                                                                                                                                                                                                                                                                                     much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: The insulin-like growth are structurally and functionally
                                                                                             European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                              Name=IGF-IB;
                                                                                                                                                                                                                                                                                                                          Name=IGF-IA;
IsoId=P08025-1;
                               SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - EDuropean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way field and this statement is not removed. Usage by and for commercial
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non-profit instituend this statement requires a license
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   tatement is not removed. Usage by and for commercial license agreement (See http://www.isb-sib.ch/announce/
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gs to the insulin i
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Sciurognathi; Muridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        plasma,
have a
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     MEDLINE-87040760; PubMed=3774549;

Bell G.I., Stemplen M.M., Fong N.M., Rall L.B.;

"Sequences of liver cDNAs encoding two different
growth factor I precursors.";

Nucleic Acide Res. 14,7873-7882(1986).

-!- FUNCTION: The insulin-like growth factors, is
are structurally and functionally related to
much higher growth promoting activity.

-!- SUBCELIULAR LOCATION: Secreted.

-!- ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                            P05017;
13-AUG-1987
13-AUG-1987
10-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                     DISULFID
DISULFID
DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
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DOMAIN
DOMAIN
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EMBL;
                                                                                                                                                                                                                        MOUSE
                                                                                                   SEQUENCE FROM N.A.
TISSUE=Liver;
                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send
                                                                                                                                                              IGF1 OR IGF-1.
                                                                                                                                                                      Insulin-like
                                                                                                                                                                                                                GFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M15647; AAA41215.
M15648; AAA41215.
M15649; AAA41227.
M17714; AAA41227.
M17335; AAA41386.
M15481; AAA41387.
                                                                                                                                                                                                                MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X06043;
M15651;
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SM00078; IlGF;
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                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                         CAPLKPAKSARSVRAQRHTDMPKTQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00262; INSULIN;
                                                                                                                                                                                                                                                         CAPLKPTKSARSIRAQRHTDMPKTQK
                                                                                                                                   Eutheria;
                                                                                                                                                                     7 (Rel. 05, Created)
7 (Rel. 05, Last sequal (Rel. 42, Last annotes)
8 (Rel. 42, Last annotes)
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AAA41215.1;
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A
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118
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                                                                                                                                    Chordata;
Rodentia;
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                                                                                                                                                                                                                                                                                                                                   75.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor;
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JOINED.
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annotation update)
IA precursor (IGF-
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D.
B. PEPTIDE.
B. SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
APL -> VRC (IN REF.
APL -> VRC (IN REF.
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1; Mismatches
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B.
                                                                                                                                   Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                PRT;
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                                                                          Rall L.B.;
wo different
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         isoforms=2
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2.9e-41;
3,
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CRC64;
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                                                                                                                                             Euteleostomi;
                                                                                                                                   Murinae;
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                                                                           insulin-like
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RESULT
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Best Local S
Matches 81
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10-OCT-2003 (
Insulin-like
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DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                        IGF1_CO:
P51462;
Kida S., Iwaki M., Nakamura A., Miura Y., Takenaka A., Takahashi S., Noguchi T.;
"Insulin-like growth factor-I messenger RNA content in the oviduct of Japanese quail (Coturnix coturnix japonica): changes during growth and development or after estrogen administration.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; P01343; IGF1.

MGD; MGI:96432; Igf1.

GO; GO:0010001; P:glial cell differentiation;

GO; GO:0007799; P:neurogenests; IMP.

InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commen
                                                                                                                                                                                                                    Coturnix coturnix japonica (Japanese quail).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COTJA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X04480; CAA281
PIR; A25540; A25540.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROPEP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS;
                                                                                         MEDLINE=95187621; PubMed=7881819;
Kida S., Iwaki M., Nakamura A., Miura
                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                             NCBI_TaxID=93934;
                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996
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                                                                                                                                                                                                                                                                                                           (Fragment).
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IsoId=P05018-1; Sequence=External.
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S; PR00277; INSULINB.
; SM00078; IlGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81;
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an email to license@isb-sib.ch).
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(Rel. 42, Last annotation update)
growth factor I precursor (IGF-I) (Somatomedin)
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Pred. No. 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plasma; Alternative splicing; Signal.
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Matches
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Best Local :
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P18254;
01-NOV-1990
01-NOV-1990
10-OCT-2003
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HSSP; P01343; 1GF1.
InterPro; IPR004825; Insulin;
Pfam; PF00049; Insulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. There are no rest
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entitles requires a license agreement (See http://www.isb-
or.send an email to license@isb-sib.ch).
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SEQUENCE OF 1-21
MEDLINE=91236750;
                                                                     SEQUENCE FROM N.A. MEDLINE=90190648;
                                                                                                                                            Gallus gallus (Chicken).
                                                                                                                                                                                                                               CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Comp. Blochem. Physiol. 109C:191-204(1994).
                                       precursor."
                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                 Insulin-like
                                                            Kajimoto
                                                                                                    NCBI_TaxID=9031;
                                                                                                                        Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                 Structure and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nsulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLŪLAR LOCATION: Secreted. SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                              Endocrinol.
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SM00078; IIGF; 1.
E; PS00262; INSULIN;
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                                                                                                                                                                                                                                                                                                                                                                  Similarity
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} (Rel. 42, Last s
ke growth factor ]
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Rotwein P.;
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                                                                                                                                                                                                                     STANDARD;
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FROM N.A.
; PubMed=2033062;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOT_ANNOTATED_CDS.
                              3:1907-1913(1989).
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48
48
48
48
42
7
7
                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi;
Weognathae; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                 13888
                                                                                                                                                                                                                                                                                                                                                                70.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ins/IGF/relax.
                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factor;
                                                                                                                                                                                                                                                                                                                                                                                                 MW;
                                                  of a chicken
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I precurso
                                                                                                                                                                                     sequence
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E PEPTIDE.
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Pred. No. 2.3e-38;
3; Mismatches 6
                                                                                                                                                                precursor
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                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasma.
                                                                                                                                                                                     update)
                                                                                                                                                                                                                                                                                            98
                                                                                                                                                                 update)
or (IGF-I)
                                                                                                                                                                                                                     153
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                                                 insulin-like growth factor
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                                                                                                                                                                  (Somatomedin)
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                                                                                                                                                                                                                                                                                                                                                                                                 CRC64;
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n but
                                                                                                                         Phasianinae;
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have a
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Matches 77
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EMBL; M74176; AAA48829.1; -.
PIR; A41399; A41399.
HSSP; P01343; 1GF1.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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MEDLLINE=9106695; PubMed=2272467;

Ballard F.J., Johnson R.J., Owens P.C., Francis G.L., Upton F.M.,

Ballard F.J., Johnson R.J.; Owens P.C.;

McMurtry J.P., Wallace J.C.;

"Chicken insulin-like growth factor-I: amino acid sequence,

radioimmunoassay, and plasma levels between strains and during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rotwein P., Kajimoto Y.; "Structure of the chicken insulin-like growth factor I gene reveals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PR00277; INSUI
SMART; SM00078; IlGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     growth.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  conserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. Comp. Endocrinol. 79:459-468(1990).
FUNCTION: The insulin-like growth factors, are structurally related to much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
109
                                             5
                                                                                                49
                                                                                                                                                                                               l Similarity
77; Conser
                                                                                                                                                                                                                                                                                                                          n family; Growth f
CAPIKPPKSARSVRAQRHTDMPKAQK 134
                             CAPLKPAKSARSVRAQRHTDMPKTQK 86
                                                                                                GPETLCGAELVDALQFVCGDRGFYFSKPTGYGSSSRRLHHKGIVDECCFQSCDLRRLEMY 108
                                                                                                                                              GPETICGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAFQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          promoter elements.";
Chem. 266:9724-9731(1991).
                                                                                                                                                                                                                                                                                                     153 AA;
                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INSULINB.
                                                                                                                                                                                                                                                                                                     100 B
17267 MW;
                                                                                                                                                                                                                          70.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor; Plasma; Signal
                                                                                                                                                                                                                                                                                                                          A.
D.
E PEPTIDE.
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                                                                                                                                                                                               Score 422; DB 1; 1
Pred. No. 2.9e-38;
3; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INSULIN-LIKE GROWTH FACTOR I.
B.
C.
                                                                                                                                                                                                                                                                                                        AAE13FDED13EE2F8 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isolated from plasma,
to insulin but have a
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Search completed: March Job time: 7.95181 secs

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